

## Sequence Listing

<110> Desnoyers,Luc  
Eaton,Dan L.  
Goddard,Audrey  
Godowski,Paul J.  
Gurney,Austin L.  
Pan,James  
Stewart,Timothy A.  
Watanabe,Colin K.  
Wood,William I.  
Zhang,Zemin

<120> SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC  
ACIDS ENCODING THE SAME

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<213> Homo Sapien

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 <213> Homo Sapien

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 20 25 30  
 Gln Thr Gly Gly Leu Pro Pro Asp Cys Ser Lys Cys Cys His Gly  
 35 40 45  
 Asp Tyr Ser Phe Arg Gly Tyr Gln Gly Pro Pro Gly Pro Pro Gly  
 50 55 60  
 Pro Pro Gly Ile Pro Gly Asn His Gly Asn Asn Gly Asn Asn Gly  
 65 70 75  
 Ala Thr Gly His Glu Gly Ala Lys Gly Glu Lys Gly Asp Lys Gly  
 80 85 90  
 Asp Leu Gly Pro Arg Gly Glu Arg Gly Gln His Gly Pro Lys Gly  
 95 100 105  
 Glu Lys Gly Tyr Pro Gly Ile Pro Pro Glu Leu Gln Ile Ala Phe  
 110 115 120  
 Met Ala Ser Leu Ala Thr His Phe Ser Asn Gln Asn Ser Gly Ile  
 125 130 135  
 Ile Phe Ser Ser Val Glu Thr Asn Ile Gly Asn Phe Phe Asp Val  
 140 145 150

Met	Thr	Gly	Arg	Phe	Gly	Ala	Pro	Val	Ser	Gly	Val	Tyr	Phe	Phe
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Thr	Phe	Ser	Met	Met	Lys	His	Glu	Asp	Val	Glu	Glu	Val	Tyr	Val
				170					175					180
Tyr	Leu	Met	His	Asn	Gly	Asn	Thr	Val	Phe	Ser	Met	Tyr	Ser	Tyr
				185					190					195
Glu	Met	Lys	Gly	Lys	Ser	Asp	Thr	Ser	Ser	Asn	His	Ala	Val	Leu
				200					205					210
Lys	Leu	Ala	Lys	Gly	Asp	Glu	Val	Trp	Leu	Arg	Met	Gly	Asn	Gly
				215					220					225
Ala	Leu	His	Gly	Asp	His	Gln	Arg	Phe	Ser	Thr	Phe	Ala	Gly	Phe
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gaccctcctg ctggcccttg ccttgggcct ggcccagcca gcctctgccc 150  
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<212> PRT

<213> Homo Sapien

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				20					25					30
Leu	Asp	Gly	Phe	Arg	Ser	Asp	Tyr	Ile	Ser	Asp	Glu	Ala	Leu	Glu
				35					40					45
Ser	Leu	Pro	Gly	Phe	Lys	Glu	Ile	Val	Ser	Arg	Gly	Val	Lys	Val
				50					55					60
Asp	Tyr	Leu	Thr	Pro	Asp	Phe	Pro	Ser	Leu	Ser	Tyr	Pro	Asn	Tyr
				65					70					75
Tyr	Thr	Leu	Met	Thr	Gly	Arg	His	Cys	Glu	Val	His	Gln	Met	Ile
				80					85					90
Gly	Asn	Tyr	Met	Trp	Asp	Pro	Thr	Thr	Asn	Lys	Ser	Phe	Asp	Ile
				95					100					105
Gly	Val	Asn	Lys	Asp	Ser	Leu	Met	Pro	Leu	Trp	Trp	Asn	Gly	Ser



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Met Tyr Tyr Trp Pro Gly Cys Glu Val 140	Glu Ile Leu Gly Val Arg 145	150
Pro Thr Tyr Cys Leu Glu Tyr Lys Asn 155	Val Pro Thr Asp Ile Asn 160	165
Phe Ala Asn Ala Val Ser Asp Ala Leu 170	Asp Ser Phe Lys Ser Gly 175	180
Arg Ala Asp Leu Ala Ala Ile Tyr His 185	Glu Arg Ile Asp Val Glu 190	195
Gly His His Tyr Gly Pro Ala Ser Pro 200	Gln Arg Lys Asp Ala Leu 205	210
Lys Ala Val Asp Thr Val Leu Lys Tyr 215	Met Thr Lys Trp Ile Gln 220	225
Glu Arg Gly Leu Gln Asp Arg Leu Asn 230	Val Ile Ile Phe Ser Asp 235	240
His Gly Met Thr Asp Ile Phe Trp Met 245	Asp Lys Val Ile Glu Leu 250	255
Asn Lys Tyr Ile Ser Leu Asn Asp Leu 260	Gln Gln Val Lys Asp Arg 265	270
Gly Pro Val Val Ser Leu Trp Pro Ala 275	Pro Gly Lys His Ser Glu 280	285
Ile Tyr Asn Lys Leu Ser Thr Val Glu 290	His Met Thr Val Tyr Glu 295	300
Lys Glu Ala Ile Pro Ser Arg Phe Tyr 305	Tyr Lys Lys Gly Lys Phe 310	315
Val Ser Pro Leu Thr Leu Val Ala Asp 320	Glu Gly Trp Phe Ile Thr 325	330
Glu Asn Arg Glu Met Leu Pro Phe Trp 335	Met Asn Ser Thr Gly Arg 340	345
Arg Glu Gly Trp Gln Arg Gly Trp His 350	Gly Tyr Asp Asn Glu Leu 355	360
Met Asp Met Arg Gly Ile Phe Leu Ala 365	Phe Gly Pro Asp Phe Lys 370	375
Ser Asn Phe Arg Ala Ala Pro Ile Arg 380	Ser Val Asp Val Tyr Asn 385	390
Val Met Cys Asn Val Val Gly Ile Thr 395	Pro Leu Pro Asn Asn Gly 400	405

Ser Trp Ser Arg Val Met Cys Met Leu Lys Gly Arg Ala Gly Thr  
 410 415 420

Ala Pro Pro Val Trp Pro Ser His Cys Ala Leu Ala Leu Ile Leu  
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Leu Phe Leu Leu Ala  
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<213> Homo Sapien

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 <212> PRT  
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Cys	Leu	Ala	His	His	Asp	Pro	Ser	Leu	Arg	Gly	His	Pro	His	Ser	20	25	30	
His	Gly	Thr	Pro	His	Cys	Tyr	Ser	Ala	Glu	Glu	Leu	Pro	Leu	Gly	35	40	45	
Gln	Ala	Pro	Pro	His	Leu	Leu	Ala	Arg	Gly	Ala	Lys	Trp	Gly	Gln	50	55	60	
Ala	Leu	Pro	Val	Ala	Leu	Val	Ser	Ser	Leu	Glu	Ala	Ala	Ser	His	65	70	75	
Arg	Gly	Arg	His	Glu	Arg	Pro	Ser	Ala	Thr	Thr	Gln	Cys	Pro	Val	80	85	90	
Leu	Arg	Pro	Glu	Glu	Val	Leu	Glu	Ala	Asp	Thr	His	Gln	Arg	Ser	95	100	105	
Ile	Ser	Pro	Trp	Arg	Tyr	Arg	Val	Asp	Thr	Asp	Glu	Asp	Arg	Tyr	110	115	120	
Pro	Gln	Lys	Leu	Ala	Phe	Ala	Glu	Cys	Leu	Cys	Arg	Gly	Cys	Ile	125	130	135	
Asp	Ala	Arg	Thr	Gly	Arg	Glu	Thr	Ala	Ala	Leu	Asn	Ser	Val	Arg	140	145	150	
Leu	Leu	Gln	Ser	Leu	Leu	Val	Leu	Arg	Arg	Arg	Pro	Cys	Ser	Arg	155	160	165	
Asp	Gly	Ser	Gly	Leu	Pro	Thr	Pro	Gly	Ala	Phe	Ala	Phe	His	Thr	170	175	180	
Glu	Phe	Ile	His	Val	Pro	Val	Gly	Cys	Thr	Cys	Val	Leu	Pro	Arg	185	190	195	

Ser Val

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gggacgtgga tgaactcggg gtgg 24

<210> 14  
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<210> 15  
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<212> DNA  
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agccatatgg tgtcaccagt gcacgggctt cggaggggtgc tcccatggat 150  
ccagatgcct gagggactcc acccactgtg tcaccactgc caccggggtc 200  
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cggccgcccc tccctcgaga ctggccagcc cacctctccc ggctcttgca 450  
gccaccgtcc agcaccgctt gtcctaggga agtctgcgt ggagtcttgc 500  
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aaaaaaaaa 660

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<211> 97

<212> PRT  
<213> Homo Sapien

<400> 16

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Gln Leu Ala Ala Ala Glu Ala Ile Trp Cys His Gln Cys Thr Gly  
20 25 30

Phe Gly Gly Cys Ser His Gly Ser Arg Cys Leu Arg Asp Ser Thr  
35 40 45

His Cys Val Thr Thr Ala Thr Arg Val Leu Ser Asn Thr Glu Asp  
50 55 60

Leu Pro Leu Val Thr Lys Met Cys His Ile Gly Cys Pro Asp Ile  
65 70 75

Pro Ser Leu Gly Leu Gly Pro Tyr Val Ser Ile Ala Cys Cys Gln  
80 85 90

Thr Ser Leu Cys Asn His Asp  
95

<210> 17  
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<212> DNA  
<213> Homo Sapien

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tctaggacat acacgggacc ccctaacttc agtcccccaa acgcgcaccc 150  
tcgaagtctt gaactccagc cccgcacatc cacgcgcggc acaggcgcgg 200  
caggcggcag gtcccgggcg aaggcgatgc gcgcaggggg tcgggcagct 250  
gggctcgggc ggcgggagta gggcccggca gggaggcagg gaggctgcat 300  
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<210> 18  
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 <212> PRT  
 <213> Homo Sapien

<400> 18  
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 35 40 45  
 His Glu Leu Ser Ser Arg Val Ser Phe Gln Glu Ala Arg Leu Ala  
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 Cys Glu Ser Glu Gly Gly Val Leu Leu Ser Leu Glu Asn Glu Ala  
 65 70 75  
 Glu Gln Lys Leu Ile Glu Ser Met Leu Gln Asn Leu Thr Lys Pro  
 80 85 90  
 Gly Thr Gly Ile Ser Asp Gly Asp Phe Trp Ile Gly Leu Trp Arg  
 95 100 105  
 Asn Gly Asp Gly Gln Thr Ser Gly Ala Cys Pro Asp Leu Tyr Gln  
 110 115 120  
 Trp Ser Asp Gly Ser Asn Ser Gln Tyr Arg Asn Trp Tyr Thr Asp  
 125 130 135  
 Glu Pro Ser Cys Gly Ser Glu Lys Cys Val Val Met Tyr His Gln  
 140 145 150  
 Pro Thr Ala Asn Pro Gly Leu Gly Gly Pro Tyr Leu Tyr Gln Trp  
 155 160 165  
 Asn Asp Asp Arg Cys Asn Met Lys His Asn Tyr Ile Cys Lys Tyr

170	175	180
Glu Pro Glu Ile Asn Pro Thr Ala Pro	Val Glu Lys Pro Tyr Leu	
185	190	195
Thr Asn Gln Pro Gly Asp Thr His Gln	Asn Val Val Val Thr Glu	
200	205	210
Ala Gly Ile Ile Pro Asn Leu Ile Tyr	Val Val Ile Pro Thr Ile	
215	220	225
Pro Leu Leu Leu Leu Ile Leu Val Ala	Phe Gly Thr Cys Cys Phe	
230	235	240
Gln Met Leu His Lys Ser Lys Gly Arg	Thr Lys Thr Ser Pro Asn	
245	250	255
Gln Ser Thr Leu Trp Ile Ser Lys Ser	Thr Arg Lys Glu Ser Gly	
260	265	270
Met Glu Val		

<210> 19  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 19  
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<210> 20  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 20  
 accacattct gatgggtgtc tcctgg 26

<210> 21  
 <211> 49  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 21  
 gggtcctac ctttaccagt ggaatgatga caggtgtaac atgaagcac 49

<210> 22  
 <211> 3824



<212> DNA  
<213> Homo Sapien

<400> 22

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gcgtgaaggg cacagaccgc cttgtgaatg tctttctggg cattccattt 200  
gcccagccgc cactgggccc tgaccggttc tcagccccac acccagcaca 250  
gccctgggag ggtgtgcggg atgccagcac tgcgccccca atgtgcctac 300  
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ccccctcaga ggagctctct caaaatgggg attagcctaa cccactctg 2150  
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 aataaatctt gctactgccc aaaa 3824

<210> 23  
 <211> 571  
 <212> PRT  
 <213> Homo Sapien

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 20 25 30  
 Val Ala Gln Pro Glu Val Asp Thr Thr Leu Gly Arg Val Arg Gly  
 35 40 45  
 Arg Gln Val Gly Val Lys Gly Thr Asp Arg Leu Val Asn Val Phe

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Leu	Gly	Ile	Pro	Phe	Ala	Gln	Pro	Pro	Leu	Gly	Pro	Asp	Arg	Phe
				65										75
Ser	Ala	Pro	His	Pro	Ala	Gln	Pro	Trp	Glu	Gly	Val	Arg	Asp	Ala
				80										90
Ser	Thr	Ala	Pro	Pro	Met	Cys	Leu	Gln	Asp	Val	Glu	Ser	Met	Asn
				95										105
Ser	Ser	Arg	Phe	Val	Leu	Asn	Gly	Lys	Gln	Gln	Ile	Phe	Ser	Val
				110										120
Ser	Glu	Asp	Cys	Leu	Val	Leu	Asn	Val	Tyr	Ser	Pro	Ala	Glu	Val
				125										135
Pro	Ala	Gly	Ser	Gly	Arg	Pro	Val	Met	Val	Trp	Val	His	Gly	Gly
				140										150
Ala	Leu	Ile	Thr	Gly	Ala	Ala	Thr	Ser	Tyr	Asp	Gly	Ser	Ala	Leu
				155										165
Ala	Ala	Tyr	Gly	Asp	Val	Val	Val	Val	Thr	Val	Gln	Tyr	Arg	Leu
				170										180
Gly	Val	Leu	Gly	Phe	Phe	Ser	Thr	Gly	Asp	Glu	His	Ala	Pro	Gly
				185										195
Asn	Gln	Gly	Phe	Leu	Asp	Val	Val	Ala	Ala	Leu	Arg	Trp	Val	Gln
				200										210
Glu	Asn	Ile	Ala	Pro	Phe	Gly	Gly	Asp	Leu	Asn	Cys	Val	Thr	Val
				215										225
Phe	Gly	Gly	Ser	Ala	Gly	Gly	Ser	Ile	Ile	Ser	Gly	Leu	Val	Leu
				230										240
Ser	Pro	Val	Ala	Ala	Gly	Leu	Phe	His	Arg	Ala	Ile	Thr	Gln	Ser
				245										255
Gly	Val	Ile	Thr	Thr	Pro	Gly	Ile	Ile	Asp	Ser	His	Pro	Trp	Pro
				260										270
Leu	Ala	Gln	Lys	Ile	Ala	Asn	Thr	Leu	Ala	Cys	Ser	Ser	Ser	Ser
				275										285
Pro	Ala	Glu	Met	Val	Gln	Cys	Leu	Gln	Gln	Lys	Glu	Gly	Glu	Glu
				290										300
Leu	Val	Leu	Ser	Lys	Lys	Leu	Lys	Asn	Thr	Ile	Tyr	Pro	Leu	Thr
				305										315
Val	Asp	Gly	Thr	Val	Phe	Pro	Lys	Ser	Pro	Lys	Glu	Leu	Leu	Lys
				320										330
Glu	Lys	Pro	Phe	His	Ser	Val	Pro	Phe	Leu	Met	Gly	Val	Asn	Asn
				335										345

His	Glu	Phe	Ser	Trp	Leu	Ile	Pro	Arg	Gly	Trp	Gly	Leu	Leu	Asp	
				350					355					360	
Thr	Met	Glu	Gln	Met	Ser	Arg	Glu	Asp	Met	Leu	Ala	Ile	Ser	Thr	
				365					370					375	
Pro	Val	Leu	Thr	Ser	Leu	Asp	Val	Pro	Pro	Glu	Met	Met	Pro	Thr	
				380					385					390	
Val	Ile	Asp	Glu	Tyr	Leu	Gly	Ser	Asn	Ser	Asp	Ala	Gln	Ala	Lys	
				395					400					405	
Cys	Gln	Ala	Phe	Gln	Glu	Phe	Met	Gly	Asp	Val	Phe	Ile	Asn	Val	
				410					415					420	
Pro	Thr	Val	Ser	Phe	Ser	Arg	Tyr	Leu	Arg	Asp	Ser	Gly	Ser	Pro	
				425					430					435	
Val	Phe	Phe	Tyr	Glu	Phe	Gln	His	Arg	Pro	Ser	Ser	Phe	Ala	Lys	
				440					445					450	
Ile	Lys	Pro	Ala	Trp	Val	Lys	Ala	Asp	His	Gly	Ala	Glu	Gly	Ala	
				455					460					465	
Phe	Val	Phe	Gly	Gly	Pro	Phe	Leu	Met	Asp	Glu	Ser	Ser	Arg	Leu	
				470					475					480	
Ala	Phe	Pro	Glu	Ala	Thr	Glu	Glu	Glu	Lys	Gln	Leu	Ser	Leu	Thr	
				485					490					495	
Met	Met	Ala	Gln	Trp	Thr	His	Phe	Ala	Arg	Thr	Gly	Asp	Pro	Asn	
				500					505					510	
Ser	Lys	Ala	Leu	Pro	Pro	Trp	Pro	Gln	Phe	Asn	Gln	Ala	Glu	Gln	
				515					520					525	
Tyr	Leu	Glu	Ile	Asn	Pro	Val	Pro	Arg	Ala	Gly	Gln	Lys	Phe	Arg	
				530					535					540	
Glu	Ala	Trp	Met	Gln	Phe	Trp	Ser	Glu	Thr	Leu	Pro	Ser	Lys	Ile	
				545					550					555	
Gln	Gln	Trp	His	Gln	Lys	Gln	Lys	Asn	Arg	Lys	Ala	Gln	Glu	Asp	
				560					565					570	

Leu

<210> 24

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 24

gcaaagctct gcctccttgg cc 22

<210> 25  
<211> 25  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 25  
gggtggactg tgctotaatg gacgc 25

<210> 26  
<211> 18  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 26  
cgtggcactg ggttgatc 18

<210> 27  
<211> 45  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 27  
gatgcagttc tggtcagaga cgctccccag caagatacaa cagtg 45

<210> 28  
<211> 1342  
<212> DNA  
<213> Homo Sapien

<400> 28  
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aggtatttgc agttttgctg tctatagttc tatgcacagt aacgctattt 100  
cttctacaac taaaattcct caaacctaaa atcaacagct tttatgcctt 150  
tgaagtgaag gatgcaaaag gaagaactgt ttctctggaa aagtataaag 200  
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agaaattact tagggctgaa ggaactgcac aaagagtttg gaccatccca 300  
cttcagcgtg ttggcttttc cctgcaatca gtttggagaa tcggagcccc 350  
gccaagcaa ggaagtagaa tcttttgcaa gaaaaaacta cggagtaact 400  
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 attttgtttt ttctttttta gtacagggtc ctagtgtttt actataactg 1250  
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<210> 29

<211> 209

<212> PRT

<213> Homo Sapien

<400> 29

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				20					25					30
Thr	Leu	Phe	Leu	Leu	Gln	Leu	Lys	Phe	Leu	Lys	Pro	Lys	Ile	Asn
				35					40					45
Ser	Phe	Tyr	Ala	Phe	Glu	Val	Lys	Asp	Ala	Lys	Gly	Arg	Thr	Val
				50					55					60
Ser	Leu	Glu	Lys	Tyr	Lys	Gly	Lys	Val	Ser	Leu	Val	Val	Asn	Val
				65					70					75
Ala	Ser	Asp	Cys	Gln	Leu	Thr	Asp	Arg	Asn	Tyr	Leu	Gly	Leu	Lys
				80					85					90

Glu	Leu	His	Lys	Glu	Phe	Gly	Pro	Ser	His	Phe	Ser	Val	Leu	Ala
				95					100					105
Phe	Pro	Cys	Asn	Gln	Phe	Gly	Glu	Ser	Glu	Pro	Arg	Pro	Ser	Lys
				110					115					120
Glu	Val	Glu	Ser	Phe	Ala	Arg	Lys	Asn	Tyr	Gly	Val	Thr	Phe	Pro
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Ile	Phe	His	Lys	Ile	Lys	Ile	Leu	Gly	Ser	Glu	Gly	Glu	Pro	Ala
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Phe	Arg	Phe	Leu	Val	Asp	Ser	Ser	Lys	Lys	Glu	Pro	Arg	Trp	Asn
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 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

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<210> 31  
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<220>  
 <223> Synthetic oligonucleotide probe

<400> 31  
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<210> 32  
 <211> 24  
 <212> DNA  
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<220>  
 <223> Synthetic oligonucleotide probe

<400> 32  
 taaccagagc tgctatgtca ggcc 24

<210> 33



<211> 50  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 33  
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<210> 34  
<211> 3721  
<212> DNA  
<213> Homo Sapien

<400> 34  
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<210> 35

<211> 888

<212> PRT

<213> Homo Sapien

<400> 35

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Pro	Pro	Pro	Leu	Ser	Val	Ala	Pro	Arg	Asp	Tyr	Leu	Asn	His	Tyr	35	40	45
Pro	Val	Phe	Val	Gly	Ser	Gly	Pro	Gly	Arg	Leu	Thr	Pro	Ala	Glu	50	55	60
Gly	Ala	Asp	Asp	Leu	Asn	Ile	Gln	Arg	Val	Leu	Arg	Val	Asn	Arg	65	70	75
Thr	Leu	Phe	Ile	Gly	Asp	Arg	Asp	Asn	Leu	Tyr	Arg	Val	Glu	Leu	80	85	90
Glu	Pro	Pro	Thr	Ser	Thr	Glu	Leu	Arg	Tyr	Gln	Arg	Lys	Leu	Thr	95	100	105
Trp	Arg	Ser	Asn	Pro	Ser	Asp	Ile	Asn	Val	Cys	Arg	Met	Lys	Gly	110	115	120
Lys	Gln	Glu	Gly	Glu	Cys	Arg	Asn	Phe	Val	Lys	Val	Leu	Leu	Leu	125	130	135
Arg	Asp	Glu	Ser	Thr	Leu	Phe	Val	Cys	Gly	Ser	Asn	Ala	Phe	Asn	140	145	150
Pro	Val	Cys	Ala	Asn	Tyr	Ser	Ile	Asp	Thr	Leu	Gln	Pro	Val	Gly	155	160	165
Asp	Asn	Ile	Ser	Gly	Met	Ala	Arg	Cys	Pro	Tyr	Asp	Pro	Lys	His	170	175	180
Ala	Asn	Val	Ala	Leu	Phe	Ser	Asp	Gly	Met	Leu	Phe	Thr	Ala	Thr	185	190	195
Val	Thr	Asp	Phe	Leu	Ala	Ile	Asp	Ala	Val	Ile	Tyr	Arg	Ser	Leu	200	205	210
Gly	Asp	Arg	Pro	Thr	Leu	Arg	Thr	Val	Lys	His	Asp	Ser	Lys	Trp	215	220	225
Phe	Lys	Glu	Pro	Tyr	Phe	Val	His	Ala	Val	Glu	Trp	Gly	Ser	His	230	235	240
Val	Tyr	Phe	Phe	Phe	Arg	Glu	Ile	Ala	Met	Glu	Phe	Asn	Tyr	Leu	245	250	255
Glu	Lys	Val	Val	Val	Ser	Arg	Val	Ala	Arg	Val	Cys	Lys	Asn	Asp	260	265	270
Val	Gly	Gly	Ser	Pro	Arg	Val	Leu	Glu	Lys	Gln	Trp	Thr	Ser	Phe	275	280	285
Leu	Lys	Ala	Arg	Leu	Asn	Cys	Ser	Val	Pro	Gly	Asp	Ser	His	Phe	290	295	300
Tyr	Phe	Asn	Val	Leu	Gln	Ala	Val	Thr	Gly	Val	Val	Ser	Leu	Gly			

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Gly Arg Pro Val	Val Leu Ala Val Phe	Ser Thr Pro Ser Asn	Ser		
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Ile Pro Gly Ser	Ala Val Cys Ala Phe	Asp Leu Thr Gln Val	Ala		
	335		340		345
Ala Val Phe Glu	Gly Arg Phe Arg Glu	Gln Lys Ser Pro Glu	Ser		
	350		355		360
Ile Trp Thr Pro	Val Pro Glu Asp Gln	Val Pro Arg Pro Arg	Pro		
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Gly Cys Cys Ala	Ala Pro Gly Met Gln	Tyr Asn Ala Ser Ser	Ala		
	380		385		390
Leu Pro Asp Asp	Ile Leu Asn Phe Val	Lys Thr His Pro Leu	Met		
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Asp Glu Ala Val	Pro Ser Leu Gly His	Ala Pro Trp Ile Leu	Arg		
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Thr Leu Met Arg	His Gln Leu Thr Arg	Val Ala Val Asp Val	Gly		
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Ala Gly Pro Trp	Gly Asn Gln Thr Val	Val Phe Leu Gly Ser	Glu		
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Ala Gly Thr Val	Leu Lys Phe Leu Val	Arg Pro Asn Ala Ser	Thr		
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Ser Gly Thr Ser	Gly Leu Ser Val Phe	Leu Glu Glu Phe Glu	Thr		
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Tyr Arg Pro Asp	Arg Cys Gly Arg Pro	Gly Gly Gly Glu Thr	Gly		
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Gln Arg Leu Leu	Ser Leu Glu Leu Asp	Ala Ala Ser Gly Gly	Leu		
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Leu Ala Ala Phe	Pro Arg Cys Val Val	Arg Val Pro Val Ala	Arg		
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Cys Gln Gln Tyr	Ser Gly Cys Met Lys	Asn Cys Ile Gly Ser	Gln		
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Asp Pro Tyr Cys	Gly Trp Ala Pro Asp	Gly Ser Cys Ile Phe	Leu		
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Ser Pro Gly Thr	Arg Ala Ala Phe Glu	Gln Asp Val Ser Gly	Ala		
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Ser Thr Ser Gly	Leu Gly Asp Cys Thr	Gly Leu Leu Arg Ala	Ser		
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Leu Ser Glu Asp	Arg Ala Gly Leu Val	Ser Val Asn Leu Leu	Val		
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Thr Ser Ser Val	Ala Ala Phe Val Val	Gly Ala Val Val Ser	Gly
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Phe Ser Val Gly Trp	Phe Val Gly Leu Arg	Glu Arg Arg Glu	Leu
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Ala Arg Arg Lys Asp	Lys Glu Ala Ile Leu	Ala His Gly Ala	Gly
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Glu Ala Val Leu Ser	Val Ser Arg Leu Gly	Glu Arg Arg Ala	Gln
650		655	660
Gly Pro Gly Gly Arg	Gly Gly Gly Gly Gly	Gly Gly Gly Ala Gly	Val
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Pro Pro Glu Ala Leu	Leu Ala Pro Leu Met	Gln Asn Gly Trp	Ala
680		685	690
Lys Ala Thr Leu Leu	Gln Gly Gly Pro His	Asp Leu Asp Ser	Gly
695		700	705
Leu Leu Pro Thr Pro	Glu Gln Thr Pro Leu	Pro Gln Lys Arg	Leu
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Pro Thr Pro His Pro	His Pro His Ala Leu	Gly Pro Arg Ala	Trp
725		730	735
Asp His Gly His Pro	Leu Leu Pro Ala Ser	Ala Ser Ser Ser	Leu
740		745	750
Leu Leu Leu Ala Pro	Ala Arg Ala Pro Glu	Gln Pro Pro Ala	Pro
755		760	765
Gly Glu Pro Thr Pro	Asp Gly Arg Leu Tyr	Ala Ala Arg Pro	Gly
770		775	780
Arg Ala Ser His Gly	Asp Phe Pro Leu Thr	Pro His Ala Ser	Pro
785		790	795
Asp Arg Arg Arg Val	Val Ser Ala Pro Thr	Gly Pro Leu Asp	Pro
800		805	810
Ala Ser Ala Ala Asp	Gly Leu Pro Arg Pro	Trp Ser Pro Pro	Pro
815		820	825
Thr Gly Ser Leu Arg	Arg Pro Leu Gly Pro	His Ala Pro Pro	Ala
830		835	840
Ala Thr Leu Arg Arg	Thr His Thr Phe Asn	Ser Gly Glu Ala	Arg
845		850	855
Pro Gly Asp Arg His	Arg Gly Cys His Ala	Arg Pro Gly Thr	Asp
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Leu Ala His Leu Leu	Pro Tyr Gly Gly Ala	Asp Arg Thr Ala	Pro
875		880	885
Pro Val Pro			

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<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 36  
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<210> 37  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 37  
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<210> 38  
<211> 42  
<212> DNA  
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<220>  
<223> Synthetic oligonucleotide probe

<400> 38  
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<210> 39  
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<212> DNA  
<213> Homo Sapien

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 <211> 502  
 <212> PRT  
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 Lys Ser Glu Ile Trp Gly Pro Gly Leu Lys Ala Asp Val Val Leu  
 35 40 45  
 Pro Ala Arg Tyr Phe Tyr Ile Gln Ala Val Asp Thr Ser Gly Asn  
 50 55 60  
 Lys Phe Thr Ser Ser Pro Gly Glu Lys Val Phe Gln Val Lys Val  
 65 70 75  
 Ser Ala Pro Glu Glu Gln Phe Thr Arg Val Gly Val Gln Val Leu  
 80 85 90  
 Asp Arg Lys Asp Gly Ser Phe Ile Val Arg Tyr Arg Met Tyr Ala  
 95 100 105  
 Ser Tyr Lys Asn Leu Lys Val Glu Ile Lys Phe Gln Gly Gln His  
 110 115 120  
 Val Ala Lys Ser Pro Tyr Ile Leu Lys Gly Pro Val Tyr His Glu  
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 Met Asn Cys Pro Glu Thr Ile Ala Gln Ile Gln Arg Asp Leu Ala  
 155 160 165  
 His Phe Pro Ala Val Asp Pro Glu Lys Ile Ala Val Glu Ile Pro  
 170 175 180  
 Lys Arg Phe Gly Gln Arg Gln Ser Leu Cys His Tyr Thr Leu Lys  
 185 190 195  
 Asp Asn Lys Val Tyr Ile Lys Thr His Gly Glu His Val Gly Phe  
 200 205 210  
 Arg Ile Phe Met Asp Ala Ile Leu Leu Ser Leu Thr Arg Lys Val  
 215 220 225  
 Lys Met Pro Asp Val Glu Leu Phe Val Asn Leu Gly Asp Trp Pro

230	235	240
Leu Glu Lys Lys Lys Ser Asn Ser Asn	Ile His Pro Ile Phe Ser	
245	250	255
Trp Cys Gly Ser Thr Asp Ser Lys Asp	Ile Val Met Pro Thr Tyr	
260	265	270
Asp Leu Thr Asp Ser Val Leu Glu Thr	Met Gly Arg Val Ser Leu	
275	280	285
Asp Met Met Ser Val Gln Ala Asn Thr	Gly Pro Pro Trp Glu Ser	
290	295	300
Lys Asn Ser Thr Ala Val Trp Arg Gly	Arg Asp Ser Arg Lys Glu	
305	310	315
Arg Leu Glu Leu Val Lys Leu Ser Arg	Lys His Pro Glu Leu Ile	
320	325	330
Asp Ala Ala Phe Thr Asn Phe Phe Phe	Phe Lys His Asp Glu Asn	
335	340	345
Leu Tyr Gly Pro Ile Val Lys His Ile	Ser Phe Phe Asp Phe Phe	
350	355	360
Lys His Lys Tyr Gln Ile Asn Ile Asp	Gly Thr Val Ala Ala Tyr	
365	370	375
Arg Leu Pro Tyr Leu Leu Val Gly Asp	Ser Val Val Leu Lys Gln	
380	385	390
Asp Ser Ile Tyr Tyr Glu His Phe Tyr	Asn Glu Leu Gln Pro Trp	
395	400	405
Lys His Tyr Ile Pro Val Lys Ser Asn	Leu Ser Asp Leu Leu Glu	
410	415	420
Lys Leu Lys Trp Ala Lys Asp His Asp	Glu Glu Ala Lys Lys Ile	
425	430	435
Ala Lys Ala Gly Gln Glu Phe Ala Arg	Asn Asn Leu Met Gly Asp	
440	445	450
Asp Ile Phe Cys Tyr Tyr Phe Lys Leu	Phe Gln Glu Tyr Ala Asn	
455	460	465
Leu Gln Val Ser Glu Pro Gln Ile Arg	Glu Gly Met Lys Arg Val	
470	475	480
Glu Pro Gln Thr Glu Asp Asp Leu Phe	Pro Cys Thr Cys His Arg	
485	490	495
Lys Lys Thr Lys Asp Glu Leu		
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<211> 26

<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 41  
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<210> 42  
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<220>  
<223> Synthetic oligonucleotide probe

<400> 42  
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<210> 43  
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<212> DNA  
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<220>  
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<400> 43  
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<210> 44  
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<212> DNA  
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tgtgcacctc agctgaaagt tcgtgctact tctgtggcct ctogtggctg 1550  
gcggcagget gcctttcgtt taccagactc tggttgaaca cctggtgtgt 1600  
gccaagtgtt ggcagtgtcc tggacagggg gcctcaggga aggacgtgga 1650  
gcagccttat ccaggcctc tgggtgtccc gacacagggtg ttcacatctg 1700  
tgctgtcagg tcagatgcct cagttcttgg aaagctaggt tcctgcgact 1750  
gttaccaagg tgattgtaaa gagctggcgg tcacagagga acaagcccc 1800  
cagctgaggg ggtgtgtgaa tcggacagcc tcccagcaga ggtgtgggag 1850  
ctgcagctga gggaagaaga gacaatcggc ctggacactc aggagggtca 1900  
aaaggagact tggctgcacc actcatcctg ccacccccag aatgcatcct 1950  
gcctcatcag gtccagattt ctttccaagg cggacgtttt ctgttggaat 2000

tcttagtcct tggcctcgga caccttcatt cgtagctgg ggagtgggtgg 2050  
tgaggcagtg aagaagaggc ggatgggtcac actcagatcc acagagccca 2100  
ggatcaaggg acccactgca gtggcagcag gactgttggg cccccacccc 2150  
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ttcctcggag ccaggatgat ctgtgccacg cttgcacctc gggcccatct 2300  
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<210> 45

<211> 310

<212> PRT

<213> Homo Sapien

<400> 45

Met	Arg	Leu	Gly	Ser	Gly	Thr	Phe	Ala	Thr	Cys	Cys	Val	Ala	Ile	1	5	10	15
Glu	Val	Leu	Gly	Ile	Ala	Val	Phe	Leu	Arg	Gly	Phe	Phe	Pro	Ala	20	25	30	
Pro	Val	Arg	Ser	Ser	Ala	Arg	Ala	Glu	His	Gly	Ala	Glu	Pro	Pro	35	40	45	
Ala	Pro	Glu	Pro	Ser	Ala	Gly	Ala	Ser	Ser	Asn	Trp	Thr	Thr	Leu	50	55	60	
Pro	Pro	Pro	Leu	Phe	Ser	Lys	Val	Val	Ile	Val	Leu	Ile	Asp	Ala	65	70	75	
Leu	Arg	Asp	Asp	Phe	Val	Phe	Gly	Ser	Lys	Gly	Val	Lys	Phe	Met	80	85	90	
Pro	Tyr	Thr	Thr	Tyr	Leu	Val	Glu	Lys	Gly	Ala	Ser	His	Ser	Phe	95	100	105	
Val	Ala	Glu	Ala	Lys	Pro	Pro	Thr	Val	Thr	Met	Pro	Arg	Ile	Lys	110	115	120	
Ala	Leu	Met	Thr	Gly	Ser	Leu	Pro	Gly	Phe	Val	Asp	Val	Ile	Arg	125	130	135	
Asn	Leu	Asn	Ser	Pro	Ala	Leu	Leu	Glu	Asp	Ser	Val	Ile	Arg	Gln	140	145	150	
Ala	Lys	Ala	Ala	Gly	Lys	Arg	Ile	Val	Phe	Tyr	Gly	Asp	Glu	Thr	155	160	165	
Trp	Val	Lys	Leu	Phe	Pro	Lys	His	Phe	Val	Glu	Tyr	Asp	Gly	Thr	170	175	180	

Thr	Ser	Phe	Phe	Val	Ser	Asp	Tyr	Thr	Glu	Val	Asp	Asn	Asn	Val
				185					190					195
Thr	Arg	His	Leu	Asp	Lys	Val	Leu	Lys	Arg	Gly	Asp	Trp	Asp	Ile
				200					205					210
Leu	Ile	Leu	His	Tyr	Leu	Gly	Leu	Asp	His	Ile	Gly	His	Ile	Ser
				215					220					225
Gly	Pro	Asn	Ser	Pro	Leu	Ile	Gly	Gln	Lys	Leu	Ser	Glu	Met	Asp
				230					235					240
Ser	Val	Leu	Met	Lys	Ile	His	Thr	Ser	Leu	Gln	Ser	Lys	Glu	Arg
				245					250					255
Glu	Thr	Pro	Leu	Pro	Asn	Leu	Leu	Val	Leu	Cys	Gly	Asp	His	Gly
				260					265					270
Met	Ser	Glu	Thr	Gly	Ser	His	Gly	Ala	Ser	Ser	Thr	Glu	Glu	Val
				275					280					285
Asn	Thr	Pro	Leu	Ile	Leu	Ile	Ser	Ser	Ala	Phe	Glu	Arg	Lys	Pro
				290					295					300
Gly	Asp	Ile	Arg	His	Pro	Lys	His	Val	Gln					
				305					310					

<210> 46  
 <211> 22  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 46  
 cgggactttc gctacctgtt gc 22

<210> 47  
 <211> 26  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 47  
 catcatattc cacaaaatgc tttggg 26

<210> 48  
 <211> 38  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Synthetic oligonucleotide probe

<400> 48

ccttcgggga ttcttcccgg ctcccgttcg ttcctctg 38

<210> 49

<211> 918

<212> DNA

<213> Homo Sapien

<400> 49

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agcaatggca atgggggtcc ccagagtcac tctgctctgc ctctttgggg 100  
ctgcgctctg cctgacaggg tccaagccc tgacgtgcta cagctttgag 150  
cacacctact ttggcccctt tgacctcagg gccatgaagc tgcccagcat 200  
ctcctgtcct catgagtgtt ttgaggctat cctgtctctg gacaccgggt 250  
atcgcgcgcc ggtgaccctg gtgcggaagg gctgctggac cgggcctcct 300  
gcggggccaga cgcaatcgaa cccggacgag ctgccgccag actactcggg 350  
ggtgcgcgcc tgcacaactg acaaatgcaa cgcccacctc atgactcatg 400  
acgccctccc caacctgagc caagcacccg acccgccgac gctcagcggc 450  
gccgagtgtt acgcctgtat cgggggtccac caggatgact gcgctatcgg 500  
caggtcccga cgagtcacgt gtcaccagga ccagaccgcc tgcttccagg 550  
gcagtggcag aatgacagtt ggcaatttct cagtccctgt gtacatcaga 600  
acctgccacc ggccctcctg caccaccgag ggaccacca gccctggac 650  
agccatcgac ctccaggggt cctgctgtga ggggtacctc tgcaacagga 700  
aatccatgac ccagcccttc accagtgttt cagccaccac ccctccccga 750  
gcactacagg tcttgccctt gctcctcca gtcctcctgc tgggtggggct 800  
ctcagcatag accgcccctc caggatgtgt gggacagggc tcacacacct 850  
cattcttgct gcttcagccc ctatcacata gctcactgga aaatgatgtt 900  
aaagtaagaa ttgcaaaa 918

<210> 50

<211> 251

<212> PRT

<213> Homo Sapien

<400> 50

Met	Ala	Met	Gly	Val	Pro	Arg	Val	Ile	Leu	Leu	Cys	Leu	Phe	Gly
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Ala	Ala	Leu	Cys	Leu	Thr	Gly	Ser	Gln	Ala	Leu	Gln	Cys	Tyr	Ser
			20						25					30

Phe	Glu	His	Thr	Tyr	Phe	Gly	Pro	Phe	Asp	Leu	Arg	Ala	Met	Lys	35	40	45
Leu	Pro	Ser	Ile	Ser	Cys	Pro	His	Glu	Cys	Phe	Glu	Ala	Ile	Leu	50	55	60
Ser	Leu	Asp	Thr	Gly	Tyr	Arg	Ala	Pro	Val	Thr	Leu	Val	Arg	Lys	65	70	75
Gly	Cys	Trp	Thr	Gly	Pro	Pro	Ala	Gly	Gln	Thr	Gln	Ser	Asn	Pro	80	85	90
Asp	Ala	Leu	Pro	Pro	Asp	Tyr	Ser	Val	Val	Arg	Gly	Cys	Thr	Thr	95	100	105
Asp	Lys	Cys	Asn	Ala	His	Leu	Met	Thr	His	Asp	Ala	Leu	Pro	Asn	110	115	120
Leu	Ser	Gln	Ala	Pro	Asp	Pro	Pro	Thr	Leu	Ser	Gly	Ala	Glu	Cys	125	130	135
Tyr	Ala	Cys	Ile	Gly	Val	His	Gln	Asp	Asp	Cys	Ala	Ile	Gly	Arg	140	145	150
Ser	Arg	Arg	Val	Gln	Cys	His	Gln	Asp	Gln	Thr	Ala	Cys	Phe	Gln	155	160	165
Gly	Ser	Gly	Arg	Met	Thr	Val	Gly	Asn	Phe	Ser	Val	Pro	Val	Tyr	170	175	180
Ile	Arg	Thr	Cys	His	Arg	Pro	Ser	Cys	Thr	Thr	Glu	Gly	Thr	Thr	185	190	195
Ser	Pro	Trp	Thr	Ala	Ile	Asp	Leu	Gln	Gly	Ser	Cys	Cys	Glu	Gly	200	205	210
Tyr	Leu	Cys	Asn	Arg	Lys	Ser	Met	Thr	Gln	Pro	Phe	Thr	Ser	Ala	215	220	225
Ser	Ala	Thr	Thr	Pro	Pro	Arg	Ala	Leu	Gln	Val	Leu	Ala	Leu	Leu	230	235	240
Leu	Pro	Val	Leu	Leu	Leu	Val	Gly	Leu	Ser	Ala					245	250	

<210> 51

<211> 3288

<212> DNA

<213> Homo Sapien

<400> 51

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gattgggaaa gggaaaggac aaaaaagacc cctgggctac acggcgtagg 100

tgcagggttt cctactgctg ttcttttatg ctgggagctg tggctgtaac 150

caactaggaa ataacgtatg cagcagctat ggctgtcaga gagttgtgct 200





gccgccccaa gacccgcacc tgccctcgc ctccctggtc tccatcaacg 1700  
 cggacaacgg ccacctgttc gccctcaggt cgctggacta cgaggccctg 1750  
 caggctttcg agttccgcgt gggcgccaca gaccgcggct ccccgcgct 1800  
 gagcagagag gcgctggtgc gcgtgctggt gctggacgcc aacgacaact 1850  
 cgcccttcgt gctgtaccog ctgcagaacg gctccgcgcc ctgcaaccgag 1900  
 ctggtgcccc gggcggcoga gccgggctac ctggtgacca aggtggtggc 1950  
 ggtggacggc gactcggggc agaacgcctg gctgtcgtac cagctgctca 2000  
 aggccacgga gcccgggctg ttcggtgtgt gggcgcaaa tggggagggtg 2050  
 cgcaccgcca ggctgctgag cgagcgcgac gcagccaagc acaggctcgt 2100  
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 gatattcagg cacaggggccc tgggaggaag ggtgaagaaa attccacctt 2550  
 ccgaaatagc tttggattta atattcagta aagtctgttt ttagtttcat 2600  
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 ctcaaattta agttattatg caacttcaag cattattttc aagtagtata 2700  
 cccctgtggt tttacaatgt ttcattcatt ttttgcatata ataacaactg 2750  
 ggtttaattt aatgagtatt tttttctaaa tgatagtgtt aagggtttta 2800  
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 atctgagggt ttgattcatt tcagagcttg catctcatga ttctaatac 2900  
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 aaactcattc taacattcta tatattcgtg tttgaaaacc atgtcattta 3000  
 tttctacatc atgtatttaa aaagaaatat ttctctacta ctatgtcat 3050  
 gacaaaatga aacaaagcat attgtgagca atactgaaca tcaataatac 3100

ccttagttta tataacttatt attttatctt taagcatgct actttttactt 3150  
 ggccaatatt ttcttatggt aacttttgct gatgtataaa acagactatg 3200  
 ccttataatt gaaataaaat tataatctgc ctgaaaatga ataaaaataa 3250  
 aacattttga aatgtgaaaa aaaaaaaaaa aaaaaaaaa 3288

<210> 52  
 <211> 800  
 <212> PRT  
 <213> Homo Sapien

<400> 52  
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 Phe Leu Phe Leu Phe Trp Gly Val Ser Leu Ala Gly Ser Gly Phe  
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 Gly Arg Tyr Ser Val Thr Glu Glu Thr Glu Lys Gly Ser Phe Val  
 35 40 45  
 Val Asn Leu Ala Lys Asp Leu Gly Leu Ala Glu Gly Glu Leu Ala  
 50 55 60  
 Ala Arg Gly Thr Arg Val Val Ser Asp Asp Asn Lys Gln Tyr Leu  
 65 70 75  
 Leu Leu Asp Ser His Thr Gly Asn Leu Leu Thr Asn Glu Lys Leu  
 80 85 90  
 Asp Arg Glu Lys Leu Cys Gly Pro Lys Glu Pro Cys Met Leu Tyr  
 95 100 105  
 Phe Gln Ile Leu Met Asp Asp Pro Phe Gln Ile Tyr Arg Ala Glu  
 110 115 120  
 Leu Arg Val Arg Asp Ile Asn Asp His Ala Pro Val Phe Gln Asp  
 125 130 135  
 Lys Glu Thr Val Leu Lys Ile Ser Glu Asn Thr Ala Glu Gly Thr  
 140 145 150  
 Ala Phe Arg Leu Glu Arg Ala Gln Asp Pro Asp Gly Gly Leu Asn  
 155 160 165  
 Gly Ile Gln Asn Tyr Thr Ile Ser Pro Asn Ser Phe Phe His Ile  
 170 175 180  
 Asn Ile Ser Gly Gly Asp Glu Gly Met Ile Tyr Pro Glu Leu Val  
 185 190 195  
 Leu Asp Lys Ala Leu Asp Arg Glu Glu Gln Gly Glu Leu Ser Leu  
 200 205 210  
 Thr Leu Thr Ala Leu Asp Gly Gly Ser Pro Ser Arg Ser Gly Thr  
 215 220 225

Ser Thr Val Arg	Ile Val Val Leu Asp	Val Asn Asp Asn Ala Pro
230	235	240
Gln Phe Ala Gln	Ala Leu Tyr Glu Thr	Gln Ala Pro Glu Asn Ser
245	250	255
Pro Ile Gly Phe	Leu Ile Val Lys Val	Trp Ala Glu Asp Val Asp
260	265	270
Ser Gly Val Asn	Ala Glu Val Ser Tyr	Ser Phe Phe Asp Ala Ser
275	280	285
Glu Asn Ile Arg	Thr Thr Phe Gln Ile	Asn Pro Phe Ser Gly Glu
290	295	300
Ile Phe Leu Arg	Glu Leu Leu Asp Tyr	Glu Leu Val Asn Ser Tyr
305	310	315
Lys Ile Asn Ile	Gln Ala Met Asp Gly	Gly Gly Leu Ser Ala Arg
320	325	330
Cys Arg Val Leu	Val Glu Val Leu Asp	Thr Asn Asp Asn Pro Pro
335	340	345
Glu Leu Ile Val	Ser Ser Phe Ser Asn	Ser Val Ala Glu Asn Ser
350	355	360
Pro Glu Thr Pro	Leu Ala Val Phe Lys	Ile Asn Asp Arg Asp Ser
365	370	375
Gly Glu Asn Gly	Lys Met Val Cys Tyr	Ile Gln Glu Asn Leu Pro
380	385	390
Phe Leu Leu Lys	Pro Ser Val Glu Asn	Phe Tyr Ile Leu Ile Thr
395	400	405
Glu Gly Ala Leu	Asp Arg Glu Ile Arg	Ala Glu Tyr Asn Ile Thr
410	415	420
Ile Thr Val Thr	Asp Leu Gly Thr Pro	Arg Leu Lys Thr Glu His
425	430	435
Asn Ile Thr Val	Leu Val Ser Asp Val	Asn Asp Asn Ala Pro Ala
440	445	450
Phe Thr Gln Thr	Ser Tyr Thr Leu Phe	Val Arg Glu Asn Asn Ser
455	460	465
Pro Ala Leu His	Ile Gly Ser Val Ser	Ala Thr Asp Arg Asp Ser
470	475	480
Gly Thr Asn Ala	Gln Val Thr Tyr Ser	Leu Leu Pro Pro Gln Asp
485	490	495
Pro His Leu Pro	Leu Ala Ser Leu Val	Ser Ile Asn Ala Asp Asn
500	505	510
Gly His Leu Phe	Ala Leu Arg Ser Leu	Asp Tyr Glu Ala Leu Gln



<210> 53  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 53  
ctggggagtg tccttggcag gttc 24

<210> 54  
<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 54  
cagcatcacag ggctcttttag ggcacac 27

<210> 55  
<211> 46  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 55  
cggtgactga ggaaacagag aaaggatcct ttgtggtcaa tctggc 46

<210> 56  
<211> 2242  
<212> DNA  
<213> Homo Sapien

<220>  
<221> unsure  
<222> 2181  
<223> unknown base

<400> 56  
gaatgaatac ctccgaagcc gctttgttct ccagatgtga atagctccac 50  
tataccagcc tcgttttctt tccgggggac aacgtgggtc agggcacaga 100  
gagatattta atgtcaccct cttgggggctt tcatgggact ccctctgcc 150  
catttttttg aggttgggaa agttgctaga ggcttcagaa ctccagccta 200  
atggatccca aactcgggag aatggctgctg tccctgctgg ctgtgctgct 250  
gctgctgctg gagcgcgga tgttctctc accctccccg cccccggcgc 300  
tgttagagaa agtcttccag tacattgacc tccatcagga tgaatttgct 350

cagacgctga aggagtgggt ggccatcgag agcgactctg tccagcctgt 400  
gcctcgcttc agacaagagc tcttcagaat gatggccgtg gctgcggaca 450  
cgctgcagcg cctgggggcc cgtgtggcct cgggtggacat gggtcctcag 500  
cagctgcccc atgggtcagag tcttccaata cctcccgta tcttgccga 550  
actggggagc gatccacga aaggcacgt gtgcttctac ggccacttg 600  
acgtgcagcc tgctgaccgg ggcgatgggt ggctcacgga cccctatgtg 650  
ctgacggagg tagacggaa actttatgga cgaggagcga ccgacaaca 700  
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aaaggaagcc agcaatcact tatggaaccc gggggaacag ctacttcatg 950  
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cctcttacag aagaggaaat aaatacatac aaagccatcc atctagacct 1150  
agaagaatac cggaatagca gccgggttga gaaatttctg ttogatacta 1200  
aggaggagat tctaattcac ctctggaggt acccatctct ttctattcat 1250  
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ccgagttata ggaaaatttt caatccgtct agtccctcac atgaatgtgt 1350  
ctgcggtgga aaaacagtg acacgacatc ttgaagatgt gttctccaaa 1400  
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tcagaacagt gtttgaaca gaaccagata tgatccggga tggatccacc 1550  
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aaatatccag agaatttggg tctagtatag tacattttcc cttccattta 1850  
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 ctgcttgacag caacttgatt tcccccaagtc ctgtgcaata gccccaggat 2000  
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 atcattccat ccaatgatcg cctttgcttt accactcttt ccttttatct 2150  
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 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa 2242

<210> 57  
 <211> 507  
 <212> PRT  
 <213> Homo Sapien

<400> 57  
 Met Asp Pro Lys Leu Gly Arg Met Ala Ala Ser Leu Leu Ala Val  
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 Leu Leu Leu Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro  
 20 25 30  
 Pro Pro Ala Leu Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His  
 35 40 45  
 Gln Asp Glu Phe Val Gln Thr Leu Lys Glu Trp Val Ala Ile Glu  
 50 55 60  
 Ser Asp Ser Val Gln Pro Val Pro Arg Phe Arg Gln Glu Leu Phe  
 65 70 75  
 Arg Met Met Ala Val Ala Ala Asp Thr Leu Gln Arg Leu Gly Ala  
 80 85 90  
 Arg Val Ala Ser Val Asp Met Gly Pro Gln Gln Leu Pro Asp Gly  
 95 100 105  
 Gln Ser Leu Pro Ile Pro Pro Val Ile Leu Ala Glu Leu Gly Ser  
 110 115 120  
 Asp Pro Thr Lys Gly Thr Val Cys Phe Tyr Gly His Leu Asp Val  
 125 130 135  
 Gln Pro Ala Asp Arg Gly Asp Gly Trp Leu Thr Asp Pro Tyr Val  
 140 145 150  
 Leu Thr Glu Val Asp Gly Lys Leu Tyr Gly Arg Gly Ala Thr Asp  
 155 160 165  
 Asn Lys Gly Pro Val Leu Ala Trp Ile Asn Ala Val Ser Ala Phe



170										175					180				
Arg	Ala	Leu	Glu	Gln	Asp	Leu	Pro	Val	Asn	Ile	Lys	Phe	Ile	Ile					
				185					190					195					
Glu	Gly	Met	Glu	Glu	Ala	Gly	Ser	Val	Ala	Leu	Glu	Glu	Leu	Val					
				200					205					210					
Glu	Lys	Glu	Lys	Asp	Arg	Phe	Phe	Ser	Gly	Val	Asp	Tyr	Ile	Val					
				215					220					225					
Ile	Ser	Asp	Asn	Leu	Trp	Ile	Ser	Gln	Arg	Lys	Pro	Ala	Ile	Thr					
				230					235					240					
Tyr	Gly	Thr	Arg	Gly	Asn	Ser	Tyr	Phe	Met	Val	Glu	Val	Lys	Cys					
				245					250					255					
Arg	Asp	Gln	Asp	Phe	His	Ser	Gly	Thr	Phe	Gly	Gly	Ile	Leu	His					
				260					265					270					
Glu	Pro	Met	Ala	Asp	Leu	Val	Ala	Leu	Leu	Gly	Ser	Leu	Val	Asp					
				275					280					285					
Ser	Ser	Gly	His	Ile	Leu	Val	Pro	Gly	Ile	Tyr	Asp	Glu	Val	Val					
				290					295					300					
Pro	Leu	Thr	Glu	Glu	Glu	Ile	Asn	Thr	Tyr	Lys	Ala	Ile	His	Leu					
				305					310					315					
Asp	Leu	Glu	Glu	Tyr	Arg	Asn	Ser	Ser	Arg	Val	Glu	Lys	Phe	Leu					
				320					325					330					
Phe	Asp	Thr	Lys	Glu	Glu	Ile	Leu	Met	His	Leu	Trp	Arg	Tyr	Pro					
				335					340					345					
Ser	Leu	Ser	Ile	His	Gly	Ile	Glu	Gly	Ala	Phe	Asp	Glu	Pro	Gly					
				350					355					360					
Thr	Lys	Thr	Val	Ile	Pro	Gly	Arg	Val	Ile	Gly	Lys	Phe	Ser	Ile					
				365					370					375					
Arg	Leu	Val	Pro	His	Met	Asn	Val	Ser	Ala	Val	Glu	Lys	Gln	Val					
				380					385					390					
Thr	Arg	His	Leu	Glu	Asp	Val	Phe	Ser	Lys	Arg	Asn	Ser	Ser	Asn					
				395					400					405					
Lys	Met	Val	Val	Ser	Met	Thr	Leu	Gly	Leu	His	Pro	Trp	Ile	Ala					
				410					415					420					
Asn	Ile	Asp	Asp	Thr	Gln	Tyr	Leu	Ala	Ala	Lys	Arg	Ala	Ile	Arg					
				425					430					435					
Thr	Val	Phe	Gly	Thr	Glu	Pro	Asp	Met	Ile	Arg	Asp	Gly	Ser	Thr					
				440					445					450					
Ile	Pro	Ile	Ala	Lys	Met	Phe	Gln	Glu	Ile	Val	His	Lys	Ser	Val					
				455					460					465					

Val Leu Ile Pro Leu Gly Ala Val Asp Asp Gly Glu His Ser Gln  
470 475 480

Asn Glu Lys Ile Asn Arg Trp Asn Tyr Ile Glu Gly Thr Lys Leu  
485 490 495

Phe Ala Ala Phe Phe Leu Glu Met Ala Gln Leu His  
500 505

<210> 58

<211> 1470

<212> DNA

<213> Homo Sapien

<400> 58

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ctttgtcatg ggacctgtgc ggttggaat attgcttttc ctttttttg 150
ccgtgcacga ggcttgggct gggatgttga aggaggagga cgatgacaca 200
gaacgcttgc ccagcaaagt cgaagtgtgt aagctgctga gcacagagct 250
acaggcgga ctgagtcgca ccggtcgatc tcgagaggtg ctggagctgg 300
ggcaggtgct ggatacaggc aagaggaaga gacacgtgcc ttacagcgtt 350
tcagagacaa ggctggaaga ggccttagag aatttatgtg agcggatcct 400
ggactatagt gtccacgctg agcgcaaggg ctactgaga tatgccaaag 450
gtcagagtca gaccatggca aactgaaag gcctagtgc gaaggggggtg 500
aaggtggatc tggggatccc tctggagctt tgggatgagc ccagcgtgga 550
ggtcacatac ctcaagaagc agtgtgagac catgttgag gagtttgaag 600
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gaggtcctgc tctagagat gaactctatc cagcccctta attggcaggt 1100
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 tagctcctta aggtctgttt ttagaccctt ccaaggaaga ggccagaacg 1250  
 gacattctct gcgatctata tacattgcct gtatccagga ggctacacac 1300  
 cagcaaaccg tgaaggagaa tgggacactg ggtcatggcc tggagttgct 1350  
 gataatttag gtgggataga tacttgggtct acttaagctc aatgtaaccc 1400  
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 aacttttttc tttttttcta 1470

<210> 59

<211> 248

<212> PRT

<213> Homo Sapien

<400> 59

Met Gly Pro Val Arg Leu Gly Ile Leu Leu Phe Leu Phe Leu Ala  
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Val His Glu Ala Trp Ala Gly Met Leu Lys Glu Glu Asp Asp Asp  
 20 25 30

Thr Glu Arg Leu Pro Ser Lys Cys Glu Val Cys Lys Leu Leu Ser  
 35 40 45

Thr Glu Leu Gln Ala Glu Leu Ser Arg Thr Gly Arg Ser Arg Glu  
 50 55 60

Val Leu Glu Leu Gly Gln Val Leu Asp Thr Gly Lys Arg Lys Arg  
 65 70 75

His Val Pro Tyr Ser Val Ser Glu Thr Arg Leu Glu Glu Ala Leu  
 80 85 90

Glu Asn Leu Cys Glu Arg Ile Leu Asp Tyr Ser Val His Ala Glu  
 95 100 105

Arg Lys Gly Ser Leu Arg Tyr Ala Lys Gly Gln Ser Gln Thr Met  
 110 115 120

Ala Thr Leu Lys Gly Leu Val Gln Lys Gly Val Lys Val Asp Leu  
 125 130 135

Gly Ile Pro Leu Glu Leu Trp Asp Glu Pro Ser Val Glu Val Thr  
 140 145 150

Tyr Leu Lys Lys Gln Cys Glu Thr Met Leu Glu Glu Phe Glu Asp  
 155 160 165

Ile Val Gly Asp Trp Tyr Phe His His Gln Glu Gln Pro Leu Gln  
 170 175 180

Asn	Phe	Leu	Cys	Glu	Gly	His	Val	Leu	Pro	Ala	Ala	Glu	Thr	Ala
				185					190					195
Cys	Leu	Gln	Glu	Thr	Trp	Thr	Gly	Lys	Glu	Ile	Thr	Asp	Gly	Glu
				200					205					210
Glu	Lys	Thr	Glu	Gly	Glu	Glu	Glu	Gln	Glu	Glu	Glu	Glu	Glu	Glu
				215					220					225
Glu	Glu	Glu	Glu	Gly	Gly	Asp	Lys	Met	Thr	Lys	Thr	Gly	Ser	His
				230					235					240
Pro	Lys	Leu	Asp	Arg	Glu	Asp	Leu							
				245										

<210> 60  
 <211> 890  
 <212> DNA  
 <213> Homo Sapien

<400> 60  
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 ctgcctgtcc ttctcctgt gcttaaccag aggtgcccat gggttggaca 100  
 atgaggctgg tcacagcagc actgttactg ggtctcatga tggagggtcac 150  
 tggagacgag gatgagaaca gcccggtgtgc ccatgaggcc ctcttggacg 200  
 aggacaccct cttttgccag ggccttgaag ttttctaccc agagttgggg 250  
 aacattggct gcaaggttgt tcctgattgt aacaactaca gacagaagat 300  
 cacctcctgg atggagccga tagtcaagtt cccggggggc gtggacggcg 350  
 caacctatat cctggatgat gtggatccag atgcccctag cagagcagaa 400  
 ccagacaga gattctggag acattggctg gtaacagata tcaagggcgc 450  
 cgacctgaag aaaggggaaga ttcagggcca ggagttatca gcctaccagg 500  
 ctccctcccc accggcacac agtggcttcc atcgctacca gttctttgtc 550  
 tatcttcagg aaggaaaagt catctctctc cttcccaagg aaaacaaaac 600  
 tcgaggctct tggaaaatgg acagatttct gaaccgcttc cacctgggcg 650  
 aacctgaagc aagcaccagc ttcattgacc agaactacca ggactcacca 700  
 accctccagg ctcccagagg aagggccagc gagcccaagc acaaaaccag 750  
 gcagagatag ctgcctgcta gatagccggc tttgccatcc gggcatgtgg 800  
 ccacactgct caccaccgac gatgtgggta tggaaccccc tctggatata 850  
 gaaccccttc ttttccaaat taaaaaaaaa aatcatcaaa 890

<210> 61

<211> 223  
 <212> PRT  
 <213> Homo Sapien

<400> 61

Met	Gly	Trp	Thr	Met	Arg	Leu	Val	Thr	Ala	Ala	Leu	Leu	Leu	Gly	1	5	10	15
Leu	Met	Met	Val	Val	Thr	Gly	Asp	Glu	Asp	Glu	Asn	Ser	Pro	Cys	20	25	30	
Ala	His	Glu	Ala	Leu	Leu	Asp	Glu	Asp	Thr	Leu	Phe	Cys	Gln	Gly	35	40	45	
Leu	Glu	Val	Phe	Tyr	Pro	Glu	Leu	Gly	Asn	Ile	Gly	Cys	Lys	Val	50	55	60	
Val	Pro	Asp	Cys	Asn	Asn	Tyr	Arg	Gln	Lys	Ile	Thr	Ser	Trp	Met	65	70	75	
Glu	Pro	Ile	Val	Lys	Phe	Pro	Gly	Ala	Val	Asp	Gly	Ala	Thr	Tyr	80	85	90	
Ile	Leu	Val	Met	Val	Asp	Pro	Asp	Ala	Pro	Ser	Arg	Ala	Glu	Pro	95	100	105	
Arg	Gln	Arg	Phe	Trp	Arg	His	Trp	Leu	Val	Thr	Asp	Ile	Lys	Gly	110	115	120	
Ala	Asp	Leu	Lys	Lys	Gly	Lys	Ile	Gln	Gly	Gln	Glu	Leu	Ser	Ala	125	130	135	
Tyr	Gln	Ala	Pro	Ser	Pro	Pro	Ala	His	Ser	Gly	Phe	His	Arg	Tyr	140	145	150	
Gln	Phe	Phe	Val	Tyr	Leu	Gln	Glu	Gly	Lys	Val	Ile	Ser	Leu	Leu	155	160	165	
Pro	Lys	Glu	Asn	Lys	Thr	Arg	Gly	Ser	Trp	Lys	Met	Asp	Arg	Phe	170	175	180	
Leu	Asn	Arg	Phe	His	Leu	Gly	Glu	Pro	Glu	Ala	Ser	Thr	Gln	Phe	185	190	195	
Met	Thr	Gln	Asn	Tyr	Gln	Asp	Ser	Pro	Thr	Leu	Gln	Ala	Pro	Arg	200	205	210	
Gly	Arg	Ala	Ser	Glu	Pro	Lys	His	Lys	Thr	Arg	Gln	Arg	215	220				

<210> 62  
 <211> 1321  
 <212> DNA  
 <213> Homo Sapien

<400> 62

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 tcaactgttg tggtatcaca tgcaagtatc cagaggctct tgagcaaggc 200  
 agaggggagc ccatttatct gggaatccag aatccagaaa tgtgtttgta 250  
 ttgtgagaag gttggagaac agcccacatt gcagctaaaa gagcagaaga 300  
 tcatggatct gtatggccaa cccgagcccg tgaaaccctt ccttttctac 350  
 cgtgccaaga ctggtaggac ctccaccctt gagtctgtgg ccttcccga 400  
 ctggttcatt gctcctcca agagagacca gcccatcatt ctgacttcag 450  
 aacttgggaa gtcatacaac actgcctttg aattaaatat aaatgactga 500  
 actcagccta gaggtggcag cttggtcttt gtcttaaagt ttctggttcc 550  
 caatgtgttt tcgtctacat tttcttagtg tcattttcac gctggtgctg 600  
 agacaggagc aaggctgctg ttatcatctc attttataat gaagaagaag 650  
 caattacttc atagcaactg aagaacagga tgtggcctca gaagcaggag 700  
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 tgtgtgtaat agaaccttct tagcattaag accttgtaaa caaaaataat 1000  
 tcttgggggtg ggtatgaaga tgcttcagag ctcatgocg ttaccacga 1050  
 tggcatgact agcacagagc tgatctctgt ttctgttttg ctttattccc 1100  
 tcttgggatg atatcatcca gtctttatat gttgccaata tacctcattg 1150  
 tgtgtaatag aaccttctta gcattaagac cttgtaaaca aaaataattc 1200  
 ttgtgttaag ttaaatacatt tttgtcctaa ttgtaatgtg taatcttaaa 1250  
 gttaaataaa ctttgtgtat ttatataata ataaagctaa aactgatata 1300  
 aaataaagaa agagtaaact g 1321

<210> 63  
 <211> 134  
 <212> PRT  
 <213> Homo Sapien

<400> 63

Met	Arg	Gly	Thr	Pro	Gly	Asp	Ala	Asp	Gly	Gly	Gly	Arg	Ala	Val
1				5					10					15
Tyr	Gln	Ser	Ile	Thr	Val	Ala	Val	Ile	Thr	Cys	Lys	Tyr	Pro	Glu
			20						25					30
Ala	Leu	Glu	Gln	Gly	Arg	Gly	Asp	Pro	Ile	Tyr	Leu	Gly	Ile	Gln
			35						40					45
Asn	Pro	Glu	Met	Cys	Leu	Tyr	Cys	Glu	Lys	Val	Gly	Glu	Gln	Pro
			50						55					60
Thr	Leu	Gln	Leu	Lys	Glu	Gln	Lys	Ile	Met	Asp	Leu	Tyr	Gly	Gln
			65						70					75
Pro	Glu	Pro	Val	Lys	Pro	Phe	Leu	Phe	Tyr	Arg	Ala	Lys	Thr	Gly
			80						85					90
Arg	Thr	Ser	Thr	Leu	Glu	Ser	Val	Ala	Phe	Pro	Asp	Trp	Phe	Ile
			95						100					105
Ala	Ser	Ser	Lys	Arg	Asp	Gln	Pro	Ile	Ile	Leu	Thr	Ser	Glu	Leu
			110						115					120
Gly	Lys	Ser	Tyr	Asn	Thr	Ala	Phe	Glu	Leu	Asn	Ile	Asn	Asp	
			125						130					

<210> 64  
 <211> 999  
 <212> DNA  
 <213> Homo Sapien

<400> 64  
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 gtgctgctgc tgcctctggc gggagcccc gccgcgcggc ccactcccc 100  
 gacctgctac tcccgcatgc gggccctgag ccaggagatc accgcgcact 150  
 tcaacctcct gcaggtctcg gagccctcgg agccatgtgt gagatacctg 200  
 cccaggctgt acctggacat acacaattac tgtgtgctgg acaagctgcg 250  
 ggactttgtg gcctcgcccc cgtgttgga aagtggcccag gtagattcct 300  
 tgaaggacaa agcacggaag ctgtacacca tcatgaactc gttctgcagg 350  
 agagatttgg tattcctggt ggatgactgc aatgccttgg aatacccaat 400  
 cccagtgact acggtcctgc cagatcgtca gcgctaaggg aactgagacc 450  
 agagaaagaa cccaagagaa ctaaagttat gtcagctacc cagacttaat 500  
 gggccagagc catgaccctc acaggtcttg tgtagttgt atctgaaact 550  
 gttatgtatc tctctacctt ctggaaaaca gggctggtat tcctaccag 600  
 gaacctcctt tgagcataga gtagcaacc atgcttctca ttcccttgac 650

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tcatgtcttg ccaggatggg tagatacaca gcatgttgat ttggtcacta 700
aaaagaagaa aaggactaac aagcttcact tttatgaaca actattttga 750
gaacatgcac aatagtatgt ttttattact ggtttaatgg agtaatggta 800
cttttattct ttcttgatag aaacctgctt acatttaacc aagcttctat 850
tatgcctttt tctaacacag actttcttca ctgtctttca tttaaaaaga 900
aattaatgct cttaagatat atattttacg tagtgctgac aggaccact 950
ctttcattga aaggtgatga aaatcaaata aagaatctct tcacatgga 999

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<210> 65
<211> 136
<212> PRT
<213> Homo Sapien

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<400> 65
Met Arg Thr Pro Gly Pro Leu Pro Val Leu Leu Leu Leu Ala
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Gly Ala Pro Ala Ala Arg Pro Thr Pro Pro Thr Cys Tyr Ser Arg
          20          25          30
Met Arg Ala Leu Ser Gln Glu Ile Thr Arg Asp Phe Asn Leu Leu
          35          40          45
Gln Val Ser Glu Pro Ser Glu Pro Cys Val Arg Tyr Leu Pro Arg
          50          55          60
Leu Tyr Leu Asp Ile His Asn Tyr Cys Val Leu Asp Lys Leu Arg
          65          70          75
Asp Phe Val Ala Ser Pro Pro Cys Trp Lys Val Ala Gln Val Asp
          80          85          90
Ser Leu Lys Asp Lys Ala Arg Lys Leu Tyr Thr Ile Met Asn Ser
          95          100          105
Phe Cys Arg Arg Asp Leu Val Phe Leu Leu Asp Asp Cys Asn Ala
          110          115          120
Leu Glu Tyr Pro Ile Pro Val Thr Thr Val Leu Pro Asp Arg Gln
          125          130          135

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Arg

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<210> 66
<211> 1893
<212> DNA
<213> Homo Sapien

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<400> 66
gtctccgcgt cacaggaact tcagcaccca cagggcggac agcgctcccc 50

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ccgtcgagtg tcagagatcc tgcagccgcc cagtcccggc cctctccccg 150  
ccccacaccc accctcctgg ctcttcctgt ttttactcct ccttttcatt 200  
cataacaaaa gctacagctc caggagccca gcgcggggct gtgacccaag 250  
ccgagcgtgg aagaatgggg ttcttcggga ccggcacttg gattctggtg 300  
ttagtgctcc cgattcaagc tttcccaaaa cctggaggaa gccaagacaa 350  
atctctacat aatagagaat taagtgcaga aagaccttg aatgaacaga 400  
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aagccaggtc agagcaacta ttcttttggt gataacttga acctgctaaa 500  
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taaatttcaa gatgatccag atggtcttca tcaactagac gggactcctt 700  
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aataagccca caagctggac tgagaatcag gctggaaaaa taccagagaa 950  
agtgactcca atggcagcaa ttcaagatgg tcttgctaag ggagaaaacg 1000  
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tttctatgcy ctactgaaaa gtattgattc agaaaaagaa gcaaaaagaga 1150  
aagaaacact gattactatc atgaaaacac tgattgactt tgtgaagatg 1200  
atggtgaaat atggaacaat atctccagaa gaaggtgttt cctaccttga 1250  
aaacttggat gaaatgattg ctcttcagac caaaaacaag ctagaaaaaa 1300  
atgctactga caatataagc aagcttttcc cagcaccatc agagaagagt 1350  
catgaagaaa cagacagtac caaggaagaa gcagctaaga tggaaaagga 1400  
atatggaagc ttgaaggatt ccacaaaaga tgataactcc aaccaggag 1450  
gaaagacaga tgaacccaaa ggaaaaacag aagcctatth ggaagccatc 1500

agaaaaaata ttgaatgggt gaagaaacat gacaaaaagg gaaataaaga 1550  
 agattatgac ctttcaaaga tgagagactt catcaataaa caagctgatg 1600  
 cttatgtgga gaaaggcatc cttgacaagg aagaagccga ggccatcaag 1650  
 cgcatttata gcagcctgta aaaatggcaa aagatccagg agtcctttcaa 1700  
 ctgtttcaga aaacataata tagcttaaaa cacttctaata tctgtgatta 1750  
 aaatTTTTtg acccaaggggt tattagaaag tgctgaattt acagtagtta 1800  
 accttttaca agtgggttaaa acatagcttt cttcccgtaa aaactatctg 1850  
 aaagtaaagt tgtatgtaag ctgaaaaaaaa aaaaaaaaaa aaa 1893

<210> 67  
 <211> 468  
 <212> PRT  
 <213> Homo Sapien

<400> 67  
 Met Gly Phe Leu Gly Thr Gly Thr Trp Ile Leu Val Leu Val Leu  
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 Pro Ile Gln Ala Phe Pro Lys Pro Gly Gly Ser Gln Asp Lys Ser  
 20 25 30  
 Leu His Asn Arg Glu Leu Ser Ala Glu Arg Pro Leu Asn Glu Gln  
 35 40 45  
 Ile Ala Glu Ala Glu Glu Asp Lys Ile Lys Lys Thr Tyr Pro Pro  
 50 55 60  
 Glu Asn Lys Pro Gly Gln Ser Asn Tyr Ser Phe Val Asp Asn Leu  
 65 70 75  
 Asn Leu Leu Lys Ala Ile Thr Glu Lys Glu Lys Ile Glu Lys Glu  
 80 85 90  
 Arg Gln Ser Ile Arg Ser Ser Pro Leu Asp Asn Lys Leu Asn Val  
 95 100 105  
 Glu Asp Val Asp Ser Thr Lys Asn Arg Lys Leu Ile Asp Asp Tyr  
 110 115 120  
 Asp Ser Thr Lys Ser Gly Leu Asp His Lys Phe Gln Asp Asp Pro  
 125 130 135  
 Asp Gly Leu His Gln Leu Asp Gly Thr Pro Leu Thr Ala Glu Asp  
 140 145 150  
 Ile Val His Lys Ile Ala Ala Arg Ile Tyr Glu Glu Asn Asp Arg  
 155 160 165  
 Ala Val Phe Asp Lys Ile Val Ser Lys Leu Leu Asn Leu Gly Leu  
 170 175 180

Ile Thr Glu Ser	Gln Ala His Thr Leu	Glu Asp Glu Val Ala Glu	185	190	195
Val Leu Gln Lys	Leu Ile Ser Lys Glu	Ala Asn Asn Tyr Glu Glu	200	205	210
Asp Pro Asn Lys	Pro Thr Ser Trp Thr	Glu Asn Gln Ala Gly Lys	215	220	225
Ile Pro Glu Lys	Val Thr Pro Met Ala	Ala Ile Gln Asp Gly Leu	230	235	240
Ala Lys Gly Glu	Asn Asp Glu Thr Val	Ser Asn Thr Leu Thr Leu	245	250	255
Thr Asn Gly Leu	Glu Arg Arg Thr Lys	Thr Tyr Ser Glu Asp Asn	260	265	270
Phe Glu Glu Leu	Gln Tyr Phe Pro Asn	Phe Tyr Ala Leu Leu Lys	275	280	285
Ser Ile Asp Ser	Glu Lys Glu Ala Lys	Glu Lys Glu Thr Leu Ile	290	295	300
Thr Ile Met Lys	Thr Leu Ile Asp Phe	Val Lys Met Met Val Lys	305	310	315
Tyr Gly Thr Ile	Ser Pro Glu Glu Gly	Val Ser Tyr Leu Glu Asn	320	325	330
Leu Asp Glu Met	Ile Ala Leu Gln Thr	Lys Asn Lys Leu Glu Lys	335	340	345
Asn Ala Thr Asp	Asn Ile Ser Lys Leu	Phe Pro Ala Pro Ser Glu	350	355	360
Lys Ser His Glu	Glu Thr Asp Ser Thr	Lys Glu Glu Ala Ala Lys	365	370	375
Met Glu Lys Glu	Tyr Gly Ser Leu Lys	Asp Ser Thr Lys Asp Asp	380	385	390
Asn Ser Asn Pro	Gly Gly Lys Thr Asp	Glu Pro Lys Gly Lys Thr	395	400	405
Glu Ala Tyr Leu	Glu Ala Ile Arg Lys	Asn Ile Glu Trp Leu Lys	410	415	420
Lys His Asp Lys	Lys Gly Asn Lys Glu	Asp Tyr Asp Leu Ser Lys	425	430	435
Met Arg Asp Phe	Ile Asn Lys Gln Ala	Asp Ala Tyr Val Glu Lys	440	445	450
Gly Ile Leu Asp	Lys Glu Glu Ala Glu	Ala Ile Lys Arg Ile Tyr	455	460	465
Ser Ser Leu					

<210> 68  
<211> 22  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 68  
cgtcacagga acttcagcac cc 22

<210> 69  
<211> 23  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 69  
gtcttggtt cctccaggtt tgg 23

<210> 70  
<211> 38  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Synthetic oligonucleotide probe

<400> 70  
ggacagcgct cccctctacc tggagacttg actcccg 38

<210> 71  
<211> 2379  
<212> DNA  
<213> Homo Sapien

<400> 71  
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gctgctcctg ccagcccttc tgagctcagg ttggggggag ttggagccac 150  
aaatagatgg tcagacctgg gctgagcggg cacttcggga gaatgaacgc 200  
cacgccttca cctgccgggt ggagggggg cctggcacc ccagattggc 250  
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gcgtgggagg ggaggccttc tctggaggca ccagcacctt cactgtcact 350  
gcccatcggg ccagcatga gctcaactgc tctctgcagg accccagaag 400  
tggccgatca gccaacgcct ctgtcatcct taatgtgcaa ttcaagccag 450

agattgcca agtcggcgcc aagtaccagg aagctcaggg cccaggcctc 500  
 ctggttgctc tgtttgccct ggtgcgtgcc aaccgcccgg ccaatgtcac 550  
 ctggatcgac caggatgggc cagtgactgt caacacctct gacttcctgg 600  
 tgctggatgc gcagaactac ccctggctca ccaaccacac ggtgcagctg 650  
 cagctccgca gcctggcaca caacctctcg gtggtggcca ccaatgacgt 700  
 ggggtgtacc agtgcgtcgc ttccagcccc agggccctcc cggcaccat 750  
 ctctgatatc aagtgactcc aacaacctaa aactcaaca cgtgcgcctg 800  
 ccacgggaga acatgtccct cccgtccaac cttcagctca atgacctcac 850  
 tccagattcc agagcagtga aaccagcaga ccggcagatg gctcagaaca 900  
 acagccggcc agagcttctg gaccgggagc ccggcggcct cctcaccagc 950  
 caaggtttca tccgcctccc agtgctgggc tatatctatc gagtgtccag 1000  
 cgtgagcagt gatgagatct ggctctgagc cgagggcgag acaggagtat 1050  
 tctcttggcc tctggacacc ctcccattcc tccaaggcat cctctaccta 1100  
 gctaggtcac caacgtgaag aagttatgcc actgccactt ttgcttgccc 1150  
 tcctggctgg ggtgccctcc atgtcatgca cgtgatgcat ttcactgggc 1200  
 tgtaaccgc aggggcacag gtatcttttg caaggctacc agttggacgt 1250  
 aagccctca tgctgactca ggggtgggccc tgcatgtgat gactgggccc 1300  
 ttccagaggg agctcttttg ccagggtgtg tcagatgtca tccagcatcc 1350  
 aagtgtggca tggcctgctg tataccccac ccagtgactc cacagcacct 1400  
 tgtacagtag gcatgggggc gtgcctgtgt gggggacagg gagggccctg 1450  
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 atttaggacc ctgctagctg tgcagaacct aattgccctt tgcacagaaa 1550  
 ccaaccctg acccagcggg accggccaag cacaacgctc ctttttgctg 1600  
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 gaattctagg ttacacgttg gaccttctct actacttcac tgggcactag 1700  
 acttttctat tggcctgtgc catgcccag tattagcaca agttagggag 1750  
 gaagaggcag gcgatgagtc tagtagcacc caggacggct ttagctatg 1800  
 catcattttc ctacggcggt agcactttaa gcacatcccc taggggaggg 1850  
 ggtgagtgag gggcccagag ccctcttgtt ggcttcccca cgtttggcct 1900

tctgggattc actgtgagtg tcctgagctc tcgggggtga tggtttttct 1950  
 ctcagcatgt ctctccacc acgggacccc agccctgacc aacccatggt 2000  
 tgcctcatca gcaggaaggt gcccttcctg gaggatggtc gccacaggca 2050  
 cataattcaa cagtgtggaa gctttagggg aacatggaga aagaaggaga 2100  
 ccacataccc caaagtgacc taagaacact ttaaaaagca acatgtaaat 2150  
 gattggaaat taatatagta cagaatatat ttttcccttg ttgagatctt 2200  
 cttttgtaat gtttttcatg ttactgccta gggcgggtgct gagcacacag 2250  
 caagtttaat aaacttgact gaattcattt aaaaaaaaaa aaaaaaaaaa 2300  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2350  
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 2379

<210> 72

<211> 322

<212> PRT

<213> Homo Sapien

<400> 72

Met	Ala	Leu	Pro	Pro	Gly	Pro	Ala	Ala	Leu	Arg	His	Thr	Leu	Leu	1	5	10	15
Leu	Leu	Pro	Ala	Leu	Leu	Ser	Ser	Gly	Trp	Gly	Glu	Leu	Glu	Pro	20	25	30	
Gln	Ile	Asp	Gly	Gln	Thr	Trp	Ala	Glu	Arg	Ala	Leu	Arg	Glu	Asn	35	40	45	
Glu	Arg	His	Ala	Phe	Thr	Cys	Arg	Val	Ala	Gly	Gly	Pro	Gly	Thr	50	55	60	
Pro	Arg	Leu	Ala	Trp	Tyr	Leu	Asp	Gly	Gln	Leu	Gln	Glu	Ala	Ser	65	70	75	
Thr	Ser	Arg	Leu	Leu	Ser	Val	Gly	Gly	Glu	Ala	Phe	Ser	Gly	Gly	80	85	90	
Thr	Ser	Thr	Phe	Thr	Val	Thr	Ala	His	Arg	Ala	Gln	His	Glu	Leu	95	100	105	
Asn	Cys	Ser	Leu	Gln	Asp	Pro	Arg	Ser	Gly	Arg	Ser	Ala	Asn	Ala	110	115	120	
Ser	Val	Ile	Leu	Asn	Val	Gln	Phe	Lys	Pro	Glu	Ile	Ala	Gln	Val	125	130	135	
Gly	Ala	Lys	Tyr	Gln	Glu	Ala	Gln	Gly	Pro	Gly	Leu	Leu	Val	Val	140	145	150	
Leu	Phe	Ala	Leu	Val	Arg	Ala	Asn	Pro	Pro	Ala	Asn	Val	Thr	Trp	155	160	165	

Ile	Asp	Gln	Asp	Gly	Pro	Val	Thr	Val	Asn	Thr	Ser	Asp	Phe	Leu
				170					175					180
Val	Leu	Asp	Ala	Gln	Asn	Tyr	Pro	Trp	Leu	Thr	Asn	His	Thr	Val
				185					190					195
Gln	Leu	Gln	Leu	Arg	Ser	Leu	Ala	His	Asn	Leu	Ser	Val	Val	Ala
				200					205					210
Thr	Asn	Asp	Val	Gly	Val	Thr	Ser	Ala	Ser	Leu	Pro	Ala	Pro	Gly
				215					220					225
Pro	Ser	Arg	His	Pro	Ser	Leu	Ile	Ser	Ser	Asp	Ser	Asn	Asn	Leu
				230					235					240
Lys	Leu	Asn	Asn	Val	Arg	Leu	Pro	Arg	Glu	Asn	Met	Ser	Leu	Pro
				245					250					255
Ser	Asn	Leu	Gln	Leu	Asn	Asp	Leu	Thr	Pro	Asp	Ser	Arg	Ala	Val
				260					265					270
Lys	Pro	Ala	Asp	Arg	Gln	Met	Ala	Gln	Asn	Asn	Ser	Arg	Pro	Glu
				275					280					285
Leu	Leu	Asp	Pro	Glu	Pro	Gly	Gly	Leu	Leu	Thr	Ser	Gln	Gly	Phe
				290					295					300
Ile	Arg	Leu	Pro	Val	Leu	Gly	Tyr	Ile	Tyr	Arg	Val	Ser	Ser	Val
				305					310					315
Ser	Ser	Asp	Glu	Ile	Trp	Leu								
				320										

<210> 73  
 <211> 843  
 <212> DNA  
 <213> Homo Sapien

<400> 73  
 cggggacgga agcggcccct gggcccgagg ggctggagcc gggccggggc 50  
 gatgtggagc gcgggccgcg gcggggctgc ctggccggtg ctgttggggc 100  
 tgctgctggc gctgttagtg ccgggcggtg gtgccgcaa gaccggtgcg 150  
 gagctcgtga cctgcgggtc ggtgctgaag ctgctcaata cgcaccaccg 200  
 cgtgcggctg cactgcacg acatcaaata cggatccggc agcgccagc 250  
 aatcggtgac cggcgtagag gcgtcggacg acgccaatag ctactggcgg 300  
 atccgcggcg gctcggaggg cgggtgcccg cgcggtccc cggcgctg 350  
 cgggcaggcg gtgaggctca cgcattgtgt tacgggcaag aacctgcaca 400  
 cgcaccactt cccgtcgccg ctgtccaaca accaggaggt gaggccttt 450  
 ggggaagacg gcgagggcga cgacctggac ctatggacag tgcgctgctc 500

tggacagcac tgggagcgtg aggcgtgctgt gcgcttccag catgtgggca 550  
 cctctgtgtt cctgtcagtc acgggtgagc agtatggaag ccccatccgt 600  
 gggcagcatg aggtccacgg catgcccagt gccaacacgc acaatacgtg 650  
 gaaggccatg gaaggcatct tcatcaagcc tagtgtggag ccctctgcag 700  
 gtcacgatga actctgagtg tgtggatgga tgggtggatg gaggggtggca 750  
 ggtggggcgt ctgcagggcc actcttggca gagactttgg gttttaggg 800  
 gtcctcaagt gcctttgtga ttaaagaatg ttggtctatg aaa 843

<210> 74

<211> 221

<212> PRT

<213> Homo Sapien

<400> 74

Met	Trp	Ser	Ala	Gly	Arg	Gly	Gly	Ala	Ala	Trp	Pro	Val	Leu	Leu	1	5	10	15
Gly	Leu	Leu	Leu	Ala	Leu	Leu	Val	Pro	Gly	Gly	Gly	Ala	Ala	Lys	20	25	30	
Thr	Gly	Ala	Glu	Leu	Val	Thr	Cys	Gly	Ser	Val	Leu	Lys	Leu	Leu	35	40	45	
Asn	Thr	His	His	Arg	Val	Arg	Leu	His	Ser	His	Asp	Ile	Lys	Tyr	50	55	60	
Gly	Ser	Gly	Ser	Gly	Gln	Gln	Ser	Val	Thr	Gly	Val	Glu	Ala	Ser	65	70	75	
Asp	Asp	Ala	Asn	Ser	Tyr	Trp	Arg	Ile	Arg	Gly	Gly	Ser	Glu	Gly	80	85	90	
Gly	Cys	Pro	Arg	Gly	Ser	Pro	Val	Arg	Cys	Gly	Gln	Ala	Val	Arg	95	100	105	
Leu	Thr	His	Val	Leu	Thr	Gly	Lys	Asn	Leu	His	Thr	His	His	Phe	110	115	120	
Pro	Ser	Pro	Leu	Ser	Asn	Asn	Gln	Glu	Val	Ser	Ala	Phe	Gly	Glu	125	130	135	
Asp	Gly	Glu	Gly	Asp	Asp	Leu	Asp	Leu	Trp	Thr	Val	Arg	Cys	Ser	140	145	150	
Gly	Gln	His	Trp	Glu	Arg	Glu	Ala	Ala	Val	Arg	Phe	Gln	His	Val	155	160	165	
Gly	Thr	Ser	Val	Phe	Leu	Ser	Val	Thr	Gly	Glu	Gln	Tyr	Gly	Ser	170	175	180	
Pro	Ile	Arg	Gly	Gln	His	Glu	Val	His	Gly	Met	Pro	Ser	Ala	Asn	185	190	195	



Thr His Asn Thr Trp Lys Ala Met Glu Gly Ile Phe Ile Lys Pro  
 200 205 210

Ser Val Glu Pro Ser Ala Gly His Asp Glu Leu  
 215 220

<210> 75  
 <211> 1049  
 <212> DNA  
 <213> Homo Sapien

<400> 75  
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 ttggaaccac agacgtgagc cactccaccc agcctaaaaac ttcatcttct 100  
 ttggatgaga tgaacacttt taacaagaga acaggactct atataaatcg 150  
 ctgtgggctc accacctcta aggaggagca ctgactgaag acagaaaaat 200  
 tgatgaactg aagaagacat ggtccattat gccttacaaa cttacacagt 250  
 gctttgggaa ttccaaagta ctcagtggag agaggtgttt caggagccgt 300  
 agagccagat cgtcatcatg tctgcattgt ggctgctgct gggcctcctt 350  
 gccctgatgg acttgtctga aagcagcaac tggggatgct atggaaacat 400  
 ccaaagcctg gacaccctg gagcatcttg tgggattgga agacgtcacg 450  
 gcctgaacta ctgtggagtt cgtgcttctg aaaggctggc tgaaatagac 500  
 atgccatacc tcctgaaata tcaacccatg atgcaaaacca ttggccaaaa 550  
 gtactgcatg gatcctgccg tgatcgctgg tgtcttgtcc aggaagtctc 600  
 ccggtgacaa aattctggtc aacatgggcg ataggactag catggtgcag 650  
 gaccctggct ctcaagctcc cacatcctgg attagtgagt ctcaggtttc 700  
 ccagacaact gaagttctga ctactagaat caaagaaatc cagaggaggt 750  
 ttccaacctg gaccctgac cagtacctga gaggtggact ctgtgcctac 800  
 agtgggggtg ctggctatgt ccgaagcagc caggacctga gctgtgactt 850  
 ctgcaatgat gtccttgac gagccaagta cctcaagaga catggcttct 900  
 aacatctcag atgaaacca agaccatgat cacatatgca gcctcaaattg 950  
 ttacacagat aaaactagcc aagggcacct gtaactggga atctgagttt 1000  
 gacctaaaag tcattaaaat aacatgaatc ccattaaaaa aaaaaaaaaa 1049

<210> 76  
 <211> 194  
 <212> PRT  
 <213> Homo Sapien

<400> 76

Met	Ser	Ala	Leu	Trp	Leu	Leu	Leu	Gly	Leu	Leu	Ala	Leu	Met	Asp
1				5					10					15
Leu	Ser	Glu	Ser	Ser	Asn	Trp	Gly	Cys	Tyr	Gly	Asn	Ile	Gln	Ser
				20					25					30
Leu	Asp	Thr	Pro	Gly	Ala	Ser	Cys	Gly	Ile	Gly	Arg	Arg	His	Gly
				35					40					45
Leu	Asn	Tyr	Cys	Gly	Val	Arg	Ala	Ser	Glu	Arg	Leu	Ala	Glu	Ile
				50					55					60
Asp	Met	Pro	Tyr	Leu	Leu	Lys	Tyr	Gln	Pro	Met	Met	Gln	Thr	Ile
				65					70					75
Gly	Gln	Lys	Tyr	Cys	Met	Asp	Pro	Ala	Val	Ile	Ala	Gly	Val	Leu
				80					85					90
Ser	Arg	Lys	Ser	Pro	Gly	Asp	Lys	Ile	Leu	Val	Asn	Met	Gly	Asp
				95					100					105
Arg	Thr	Ser	Met	Val	Gln	Asp	Pro	Gly	Ser	Gln	Ala	Pro	Thr	Ser
				110					115					120
Trp	Ile	Ser	Glu	Ser	Gln	Val	Ser	Gln	Thr	Thr	Glu	Val	Leu	Thr
				125					130					135
Thr	Arg	Ile	Lys	Glu	Ile	Gln	Arg	Arg	Phe	Pro	Thr	Trp	Thr	Pro
				140					145					150
Asp	Gln	Tyr	Leu	Arg	Gly	Gly	Leu	Cys	Ala	Tyr	Ser	Gly	Gly	Ala
				155					160					165
Gly	Tyr	Val	Arg	Ser	Ser	Gln	Asp	Leu	Ser	Cys	Asp	Phe	Cys	Asn
				170					175					180
Asp	Val	Leu	Ala	Arg	Ala	Lys	Tyr	Leu	Lys	Arg	His	Gly	Phe	
				185					190					

<210> 77

<211> 899

<212> DNA

<213> Homo Sapien

<400> 77

ttgaaaatct actctatcag ctgctgtggt tgccaccatt ctcaggaccc 50  
tcgccatgaa agcccttatg ctgctcacc tgtctgttct gctctgctgg 100  
gtctcagctg acattcgctg tcaactcctgc tacaaggtcc ctgtgctggg 150  
ctgtgtggac cggcagtcct gccgcctgga gccaggacag caatgcctga 200  
caacacatgc ataccttggt aagatgtggg ttttctccaa tctgcgctgt 250  
ggcacaccag aagagccctg tcaggaggcc ttcaaccaa ccaaccgcaa 300

gctgggtctg acatataaca ccacctgctg caacaaggac aactgcaaca 350  
 gcgcaggacc ccggcccact ccagccctgg gccttgtctt ccttacctcc 400  
 ttggctggcc ttggcctctg gctgctgcac tgagactcat tccattggct 450  
 gcccctctc ccacctgcct tggcctgagc ctctctccct gtgtctctgt 500  
 atcccctggc ttacagaat cgtctctccc tagctcccat ttctttaatt 550  
 aaacactgtt ccgagtgggc tcctcatoca tccttcccac ctcacaccct 600  
 tcactctcct tttctgggt cccttcccac ttccttccag gacctccatt 650  
 ggctcctaga agggctcccc actttgcttc ctatactctg ctgtccccta 700  
 cttgaggagg gattgggac tgggcctgaa atggggcttc tgtgtgtgcc 750  
 ccagtgaagg ctcccacaag gacctgatga cctcactgta cagagctgac 800  
 tccccaaacc caggctccca tatgtacccc atccccata ctcacctctt 850  
 tccattttga gtaataaatg tctgagtctg gaaaaaaaaa aaaaaaaaaa 899

<210> 78

<211> 125

<212> PRT

<213> Homo Sapien

<400> 78

Met	Lys	Ala	Leu	Met	Leu	Leu	Thr	Leu	Ser	Val	Leu	Leu	Cys	Trp
1				5					10					15
Val	Ser	Ala	Asp	Ile	Arg	Cys	His	Ser	Cys	Tyr	Lys	Val	Pro	Val
				20					25					30
Leu	Gly	Cys	Val	Asp	Arg	Gln	Ser	Cys	Arg	Leu	Glu	Pro	Gly	Gln
				35					40					45
Gln	Cys	Leu	Thr	Thr	His	Ala	Tyr	Leu	Gly	Lys	Met	Trp	Val	Phe
				50					55					60
Ser	Asn	Leu	Arg	Cys	Gly	Thr	Pro	Glu	Glu	Pro	Cys	Gln	Glu	Ala
				65					70					75
Phe	Asn	Gln	Thr	Asn	Arg	Lys	Leu	Gly	Leu	Thr	Tyr	Asn	Thr	Thr
				80					85					90
Cys	Cys	Asn	Lys	Asp	Asn	Cys	Asn	Ser	Ala	Gly	Pro	Arg	Pro	Thr
				95					100					105
Pro	Ala	Leu	Gly	Leu	Val	Phe	Leu	Thr	Ser	Leu	Ala	Gly	Leu	Gly
				110					115					120
Leu	Trp	Leu	Leu	His										
				125										

<210> 79

<211> 1977  
<212> DNA  
<213> Homo Sapien

<400> 79

acggggccgca gcggcagtg cgtagggttg gcgcacggat ccgttgccgc 50  
tgcagctctg cagtcggggc gttccttcgc cgccgccagg ggtagcgggtg 100  
tagctgcgca gcgtcgcgcg cgctaccgca ccaggttcg gcccgtaggc 150  
gtctggcagc ccggcgccat cttcatcgag cgccatggcc gcagcctgcg 200  
ggccgggagc ggccgggtac tgcttgctcc tcggcttgca tttgtttctg 250  
ctgaccgagg gccctgccct gggctggaac gaccctgaca gaatgttgct 300  
gcgggatgta aaagctctta cctccacta tgaccgctat accacctccc 350  
gcaggctgga tcccatccca cagttgaaat gtgttgagg cacagctggt 400  
tgtgattctt ataccccaaa agtcatacag tgtcagaaca aaggctggga 450  
tgggtatgat gtacagtggg aatgtaagac ggacttagat attgcataca 500  
aatttgaaa aactgtgggt agctgtgaag gctatgagtc ctctgaagac 550  
cagtatgtac taagaggttc ttgtggcttg gagtataatt tagattatac 600  
agaacttggc ctgcagaaac tgaaggagtc tggaaagcag cacggctttg 650  
cctctttctc tgattattat tataagtggc cctcggcgga ttctgtaac 700  
atgagtggat tgattaccat cgtggtactc cttgggatcg cttttgtagt 750  
ctataagctg ttctgagtg acgggcagta ttctcctcca ccgtactctg 800  
agtatcctc attttccac cgttaccaga gattcaccaa ctacagcagga 850  
cctcctccc caggctttaa gtctgagttc acaggaccac agaatactgg 900  
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atgaaaattc aggaccaggg ttctggacag gcttgggaac tgggtggaata 1000  
ctaggatatt tgtttggcag caatagagcg gcaacaccct tctcagactc 1050  
gtggtactac ccgtcctatc ctccctccta cctggcacg tggaataggg 1100  
cttactcacc cttcatgga ggctcgggca gctattcggg atgttcaaac 1150  
tcagacacga aaaccagaac tgcacagga tatggtggta ccaggagacg 1200  
ataaagtaga aagttggagt caaacactgg atgcagaaat tttggatttt 1250  
tcatacttt ctctttagaa aaaaagtact acctgttaac aattgggaaa 1300  
aggggatatt caaaagttct gtggtgttat gtccagtgtg gctttttgta 1350

ttctattatt tgaggctaaa agttgatgtg tgacaaaata cttatgtgtt 1400  
 gtatgtcagt gtaacatgca gatgtatatatt gcagtttttg aaagtgatca 1450  
 ttactgtgga atgctaaaaa tacattaatt tctaaaacct gtgatgccct 1500  
 aagaagcatt aagaatgaag gtgttggtact aatagaaact aagtacagaa 1550  
 aatttcagtt ttaggtggtt gtagctgatg agttattacc tcatagagac 1600  
 tataatattc tatttggtat tatattatatt gatgtttgct gttcttcaaa 1650  
 catttaaatc aagcttttga ctaattatgc taatttgtga gttctgatca 1700  
 cttttgagct ctgaagcttt gaatcattca gtggtggaga tggccttctg 1750  
 gtaactgaat attaccttct gtaggaaaag gtggaaaata agcatctaga 1800  
 aggttggtgt gaatgactct gtgctggcaa aaatgcttga aacctctata 1850  
 tttctttcgt tcataagagg taaaggtcaa atttttcaac aaaagtcttt 1900  
 taataacaaa agcatgcagt tctctgtgaa atctcaaata ttgttgtaat 1950  
 agtctgtttc aatcttaaaa agaataca 1977

<210> 80

<211> 339

<212> PRT

<213> Homo Sapien

<400> 80

Met	Ala	Ala	Ala	Cys	Gly	Pro	Gly	Ala	Ala	Gly	Tyr	Cys	Leu	Leu
1				5					10					15

Leu	Gly	Leu	His	Leu	Phe	Leu	Leu	Thr	Ala	Gly	Pro	Ala	Leu	Gly
			20						25					30

Trp	Asn	Asp	Pro	Asp	Arg	Met	Leu	Leu	Arg	Asp	Val	Lys	Ala	Leu
			35						40					45

Thr	Leu	His	Tyr	Asp	Arg	Tyr	Thr	Thr	Ser	Arg	Arg	Leu	Asp	Pro
			50						55					60

Ile	Pro	Gln	Leu	Lys	Cys	Val	Gly	Gly	Thr	Ala	Gly	Cys	Asp	Ser
			65						70					75

Tyr	Thr	Pro	Lys	Val	Ile	Gln	Cys	Gln	Asn	Lys	Gly	Trp	Asp	Gly
			80						85					90

Tyr	Asp	Val	Gln	Trp	Glu	Cys	Lys	Thr	Asp	Leu	Asp	Ile	Ala	Tyr
			95						100					105

Lys	Phe	Gly	Lys	Thr	Val	Val	Ser	Cys	Glu	Gly	Tyr	Glu	Ser	Ser
			110						115					120

Glu	Asp	Gln	Tyr	Val	Leu	Arg	Gly	Ser	Cys	Gly	Leu	Glu	Tyr	Asn
			125						130					135

Leu	Asp	Tyr	Thr	Glu	Leu	Gly	Leu	Gln	Lys	Leu	Lys	Glu	Ser	Gly	140	145	150
Lys	Gln	His	Gly	Phe	Ala	Ser	Phe	Ser	Asp	Tyr	Tyr	Tyr	Lys	Trp	155	160	165
Ser	Ser	Ala	Asp	Ser	Cys	Asn	Met	Ser	Gly	Leu	Ile	Thr	Ile	Val	170	175	180
Val	Leu	Leu	Gly	Ile	Ala	Phe	Val	Val	Tyr	Lys	Leu	Phe	Leu	Ser	185	190	195
Asp	Gly	Gln	Tyr	Ser	Pro	Pro	Pro	Tyr	Ser	Glu	Tyr	Pro	Pro	Phe	200	205	210
Ser	His	Arg	Tyr	Gln	Arg	Phe	Thr	Asn	Ser	Ala	Gly	Pro	Pro	Pro	215	220	225
Pro	Gly	Phe	Lys	Ser	Glu	Phe	Thr	Gly	Pro	Gln	Asn	Thr	Gly	His	230	235	240
Gly	Ala	Thr	Ser	Gly	Phe	Gly	Ser	Ala	Phe	Thr	Gly	Gln	Gln	Gly	245	250	255
Tyr	Glu	Asn	Ser	Gly	Pro	Gly	Phe	Trp	Thr	Gly	Leu	Gly	Thr	Gly	260	265	270
Gly	Ile	Leu	Gly	Tyr	Leu	Phe	Gly	Ser	Asn	Arg	Ala	Ala	Thr	Pro	275	280	285
Phe	Ser	Asp	Ser	Trp	Tyr	Tyr	Pro	Ser	Tyr	Pro	Pro	Ser	Tyr	Pro	290	295	300
Gly	Thr	Trp	Asn	Arg	Ala	Tyr	Ser	Pro	Leu	His	Gly	Gly	Ser	Gly	305	310	315
Ser	Tyr	Ser	Val	Cys	Ser	Asn	Ser	Asp	Thr	Lys	Thr	Arg	Thr	Ala	320	325	330
Ser	Gly	Tyr	Gly	Gly	Thr	Arg	Arg	Arg							335		